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ABSTRACT

Survey results are presented from 65 parents, students over 12 years, teachers, and other school employees using 39 different schools about environmental conditions in New York City public schools. It shows the results of years of neglect of infrastructure for children and reveals disturbing new information about the environmental health of school occupants. Among the findings are that 40 percent of the respondents reported medical conditions present such as asthma or allergies, and 39 percent reported that the school conditions made their health worse. Thirty-five percent of the schools either had no fire extinguishers and/or alarms easily accessible in classrooms or did not have a playground. Thirty-three percent of the schools reported having poor ventilation, 24 percent had inadequate heat, 26 percent had obvious roach or rodent problems, 45 percent did not have clean bathrooms or lacked soap and toilet paper, 37 percent had drinking water that tasted strange, 24 percent indicated unclean cafeterias, 40 percent reported garbage and discarded waste present around the school, and 40 percent were overcrowded. Recommendations are listed that include enforcement of existing laws, linking school maintenance funding to environmental health needs of school occupants, and the closing of schools that threaten health. Appendices contain the survey document, data analysis of the 65 surveys, and a list of the schools/sites surveyed. (GR)

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Neglected Buildings, Damaged Health: A 'Snapshot' of New York City Public School Environmental Conditions

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EXECUTIVE SUMMARY

This report based on a survey of school conditions carried out by the New York City Healthy Schools Working Group provides a snapshot of the environmental conditions in New York City public schools. It shows the results of years of neglect of infrastructure for children and reveals disturbing new information about the environmental health of school occupants. It is remarkable that a time when children are being held to higher standards, that there are few standards to protect their health from hazards at school, and that even existing laws created to protect adult health and safety are being ignored. Most surprising is that, with millions of dollars spent on documenting 'brick and mortar' problems, our survey is the first to ask New York City school occupants about the public health and environmental problems that they face. These problems are not unique to New York City. The over-all results concur with a United States General Accounting Office (1995) report that surveyed schools nationally, and provides telling stories of the impact of decayed conditions on the students, teachers, and others who use schools almost daily. It also illuminates the need for federal, state, and local political leaders to uphold the law and to be held accountable for conditions that clearly are impairing children's environmental health and the ability to learn.

This report comes out of the New York City Healthy Schools Network Working Group, made up of over 25 organizations and agencies and coordinated by the Executive Director of Advocates for Children of New York Inc (AFC). The Healthy Schools Network, Inc. (HSN), is a state-wide organization of parents, environment, education, and public health groups dedicated to assuring every child and school employee an environmentally healthy school, through information, education, and coalition building. AFC has worked in partnership with New York City's most impoverished and vulnerable families to secure quality and equal public education services for over 25 years. AFC staff directed the project, collected the surveys, did the initial data analysis supplemented by another analysis from HSN , and wrote the report with comments and editing from other Healthy Schools Working Group members.

In all, the responses of some 65 people using 39 different schools who completed our survey -- including parents, students over the age of twelve, teachers, and other school employees -- demonstrate that accountability and priorities on putting children's environmental health first are urgently needed to improve the environmental health of those attending or working in New York City's public schools .

There was no attempt either to target unhealthy individuals or 'unhealthy' schools, or to create a statistically significant sample of either New York City public school users or school buildings. We believe the results, which are generally consistent with federal reports and with what school occupants have been saying for years, and which are not widely known by the public, deserve public attention. The report on results is given in three parts: environmental health of school users (n= 65), reports on school conditions (n= 39), and a list of ten schools that had multiple survey responses and their reported problems.

REPORT HIGHLIGHTS

Environmental health (n = 65 individuals)

- *40% reported a medical condition such as asthma or allergies*
- *39% of those with medical conditions said the school conditions made their health worse.*
- *14% reported sensitivity to air or fumes in schools and 12% reported more serious asthma or allergies attacks at school.*

Building Conditions (n = 39 schools)

- *35 % of schools were reported as having no fire extinguishers and/or alarms easily accessible in classrooms, and 15% of respondents said they were unaware of a safe exit strategy for leaving the building.*
- *35% of schools were reported as not having a playground*
- *33% of schools were reported as having poor ventilation*
- *24% of schools had inadequate heat*
- *30 % had lighting that was inadequate*
- *26% of schools had an obvious roach or rodent problem.*
- *45% did not have clean bathrooms and many lacked soap and toilet paper*
- *37% had drinking water that tasted funny*
- *24% indicated that the cafeterias were not clean*
- *40% reported garbage and discarded waste present around the school.*

- *24% of schools were reported to have cracks or holes in the walls and ceilings of classrooms*
- *27% reported peeling paint in classrooms*
- *40% of schools were reported as overcrowded, with more than one-quarter having thirty or more students in class and classes held in auditoriums and halls.*

In order to remedy this situation, adjustments and improvements must be made. These efforts include repairing the current problems in schools effectively and efficiently and renovating or building new schools that actually meet or exceed health and environmental safety laws. Additionally, there are numerous low cost/no cost actions, such as non-toxic pest management or increasing ventilation by opening windows that are nailed or painted shut that can be taken by our school system to make our children's learning environment a safer, healthier place.

RECOMMENDATIONS

- *Existing laws need to be properly enforced. In almost all problem areas described in this report, laws exist prohibiting these circumstances. Regular, thorough inspections of schools with proper follow up and accountability is necessary.*

- *Federal funds must be provided directly to states for school construction and repair.*

- *The Commissioner of Education needs the authority to close schools that threaten heath and safety and to set regulations to protect pupil health.*

- *The State and City must tie school Minor Maintenance and Repair funding to environmental health needs of children and other school occupants.*

- *The NYC Board of Education must commit to adopting and widely using US EPA protocols to improve indoor air quality in schools.*

- *The State must require New York City schools to meet all the same schedules and regulations as upstate schools for the state's new 'comprehensive school safety program' for facility improvements.*

- *The State Legislature should pass and the Governor sign 'healthy school environments' bills designed to: improve school air quality, improve school energy efficiency; reduce school pesticide use; and provide guidelines on school nontoxic supply purchasing.*

INTRODUCTION

Every child has a right to an environmentally safe and healthy learning environment which is clean and in good repair; officials should be held accountable for the conditions of schools; and, every child, parent, and school employee has a "right to know" about environmental health issues and hazards in their school environment.[1] These rights are part of the Guiding Principles of School Environmental Quality adopted by the New York State Board of Regents in 1994; they are basic, and one might assume it to be the norm for our schools. Unfortunately, according to the American Association of School Administrators (AASA), the US Government Accounting Office (US GAO), in New York, and across the nation, this is not the case. AASA data estimates that three-fourths of our country's school buildings have outlived their predicted useful life. This means that nearly 5 million children are subjected to substandard schools every day.[2] In referring to these 'sick' schools, the National PTA stated that, "the AASA *Schoolhouse in the Red* project reported that one building in every eight, or 13,200 schools across the nation, is inadequate for learning. . . These problems cost us the health and productivity of our most valuable natural resources – our children and the educators committed to their intellectual growth" [3]. Providing further back-up, a national survey of school conditions carried out by the US GAO found that 14 million children attend schools with one or more environmental hazards, and the nation's students were daily facing an epidemic of indoor air pollution caused by building decay and neglect of facility standards.[4] In New York State, the Education Department and State Department of Health have worked cooperatively with US Environmental Protection Agency (US EPA) to promote voluntary solutions to improving school indoor air quality.

According to the American Public Health Association and the US EPA, environmental toxins pose a greater threat to children than to adults.

> Because children's systems are still developing – including rapid changes in growth and development, immature body organs and tissues, and weaker immune systems in infancy – they are more susceptible to environmental threats;

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[1] Regents Advisory Committee on Environmental Quality in Schools, "Report to the New York State Board of Regents on the Environmental Quality of Schools, 1994."
[2] Margaret Wulf, "Is Your School Suffering From Sick Building Syndrome?" *PTA Today*, Nov/Dec 1993, Revised 1997, http://www.pta.org/programs/docs/sbs1193.rtf.
[3] Id.
[4] School Facilities: Condition of America's Schools, February 1995 GAO HEHS-95-61, p.1.

> because children eat proportionately more food, drink more fluids, and breathe more air per pound of body weight, and because they play outside more, they are exposed to more environmental threats; because children are least able to protect themselves their behavior – such as crawling on the ground or the floor – exposes them to different environmental threats.[5]

In short, children's physiology, the vulnerability of their still developing bodies, as well as their behavior, puts them at greater risk from exposures to environmental hazards. In addition, children are less aware of what constitutes a hazard, and therefore less able to protect themselves.

Moreover, occupational safety and health standards used for adults in their workplaces were not designed for nor do they apply to children in schools or other learning environments. Children are compelled to attend schools and may not leave a classroom or building. For example, children cannot always take sick days when construction fumes or debris are impairing their health and learning. With pressure on to achieve new learning standards, students need quality class time and seat time, not health-impaired time. For all these reasons, children require more protection.

Furthermore, if children are often exposed to environmental toxins – as the case may be if schools are not safe or are poorly maintained – they may have an increased tendency to develop diseases with longer latency periods, such as cancer or Parkinson's disease, later on in life because of their early exposures.[6] What toxins children are exposed to early on in their lives may affect them throughout their entire lifespans. It is therefore of the utmost importance that we make our children's environments as safe as possible, reducing or eliminating risks in order to ensure their health not only now, but also well into the future.

Specific types of childhood cancers, especially brain cancer and leukemia are on the rise. These illnesses can be linked to and triggered by environmental factors. In discussing these trends, the non-profit organization Physicians for Social Responsibility stated that:

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[5] "Environmental Health Threats to Children," Environmental Protection Agency EPA 175-F-96-001, September 1996. URL: http://www.epa.gov/epadocs/child.htm.

[6] "An Introduction to Children's Environmental Health," *Children's Environmental Health Network*, URL: http://www.cehn.org/cehn/WhatisPEH.html.

> Some substances in a child's environment can potentially cause cancer, chronic respiratory problems, and learning disabilities, among other problems. Although the death rate for childhood cancers has declined in recent years, the incidence of new cases of cancer has been increasing, especially for acute lymphocytic leukemia and brain cancer, two of the most common forms of cancer that occur during childhood. Widespread exposure to pesticides and other chemicals in the environment may contribute to the rising rate of these cancers.[7]

Philip Landrigan, MD, a pediatrician and chair of the Mount Sinai Medical Center's Department of Community Medicine, and Director of the Pew Center for Children's Health and the Environment, stated:

> Patterns of illness in American children have changed dramatically in this century. The ancient infectious diseases have largely been controlled. The major diseases confronting children now are chronic and disabling conditions termed the 'new pediatric morbidity' - asthma mortality has doubled; leukemia and brain cancer have increased in incidence; neurodevelopmental dysfunction is widespread; hypospadias incidence has doubled. Chemical toxicants in the environment as well as poverty, racism, and inequitable access to medical care are factors known and suspected to contribute to causation of these pediatric diseases. [8]

Similarly, asthma has become more common and more deadly, particularly among minority and inner city children. Data from the Federal Centers for Disease Control and Prevention (CDC) indicates that asthma deaths rose by 118% between 1980 and 1993, a frightening trend.[9] It is well established that asthma attacks are triggered by allergens, which are composed of common substances such as mold, pollen, dust mites, and particularly antigens found in cockroach feces, saliva, eggs, and cuticles. Because these allergens are so commonplace in our everyday environment, and are often invisible to the naked eye, it is all the more important that we ensure that school cleanliness is held to the strictest of standards. Pesticides are frequently used in school settings, yet recent studies point out that the mechanism by which asthma occurs is not inconsistent with the action of many pesticides. Worse, pesticides can be a threat to all building occupants.

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[7] "Why Do Kids Need Better Protection?" *Physicians for Social Responsibility*. URL: http://www.psr.org/ceh.htm.

[8] "Children's Health and the Environment: A New Agenda for Prevention Research," *National Institute for Environmental Health Sciences*. http://ehpnet1.niehs.nih.gov/child1998/full/Suppl-3/787-794landrigan/landrigan-full.html.

[9] "Environmental Health Threats to Children," *Environmental Protection Agency*, EPA 175-F-96-001, September 1996. URL: http://www.epa.gov/epadocs/child.htm.

According to the US EPA, "The term 'sick building syndrome' (SBS) is used to describe situations in which building occupants experience acute health and comfort effects that appear to be linked to time spent in a building, but no specific illness or cause can be identified. The term 'building related illness' (BRI) is used when symptoms of diagnosable illnesses are identified and can be attributed directly to airborne building contaminants." [10] The buildings are not actually 'sick,' but they can cause their occupants to become sick. A warning sign that a building is suffering from SBS is that its occupants become ill an hour or two after entering the building but feel better an hour or two after leaving. Typical health problems indicating SBS are lethargy, flu-like symptoms, headaches, and respiratory problems. Comments from our survey indicated the potential that some respondents might be suffering from BRI as a result of exposures to airborne building contaminants in their schools.

In addition, the conditions capable of causing a building to have SBS are also capable of causing a host of other problems in the building's occupants. The National Parent Teacher Association (PTA) warns of health problems from air pollutants such as asbestos, ozone, pesticides, radon, formaldehyde, tobacco smoke, and lead. Furthermore, these problems can be intensified by factors such as light, noise, and temperature.[11] These hazards are present in many schools, directly or indirectly, through lack of maintenance resulting in peeling paint, cracked ceilings, old playground equipment, and the presence of roaches and rodents. Other hazards can include hazardous cleaning chemicals, poor ventilation, and certain pesticides.

Children today face many well-documented and complex problems –violence, poverty, drugs, and abuse to name a few. Too little attention is focused on children's exposures to avoidable environmental health hazards in schools. Yet, ironically, the latter can often be addressed in a straightforward manner.

Perhaps the Children's Environmental Health Network stated it best: "Many of the problems our children face we will never be able to fix completely. However,

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[10] "Indoor Air Facts No. 4 (revised); Sick Building Syndrome (SBS)," *Environmental Protection Agency*, April 1991. URL: http://www.epa.gov/iedweb00/pubs/sbs.html.

[11] Margaret Wulf, "Is Your School Suffering From Sick Building Syndrome?" *PTA Today*, Nov/Dec 1993. URL: http://www.pta.org/programs/docs/sbs1193.rtf.

reducing our children's exposures to chemicals that can cause disease is one of the battles we can fight and win."[12]

For these reasons it is now an issue of first importance for New York City's school children to determine the environmental health and safety of New York City's schools. A first step towards making these determinations is the data analysis of the environmental health and safety conditions reported by school users found in this report.

The organizations working together on this report are the Healthy Schools Network and Advocates for Children of New York, Inc. Founded in 1994, the Healthy Schools Network, Inc. (HSN), is a state-wide organization of parent, environment, education, and public health groups dedicated to assuring every child and school employee an environmentally healthy school, through information, education, and coalition-building. Advocates for Children of New York, Inc. (AFC) has worked in partnership with New York City's most impoverished and vulnerable families to secure quality and equal public education services for over 25 years. AFC works on behalf of children from infancy to age 21 who are at greatest risk for school-based discrimination and/or academic failure. These include children with disabilities, ethnic minorities, immigrants, homeless children, foster care children, limited English proficient children and those living in poverty.[13] AFC's Executive Director has served as the coordinator of the New York City Healthy Schools Network Working Group ("the Working Group") during the last three years.

METHODOLOGY

In order to begin to determine the extent of possible environmental hazards in schools, from March to June 1999, the Working Group created a survey instrument and conducted a survey of school consumers (See survey in Appendix A; results in Appendix B) Survey respondents included students over twelve, parents, teachers, and other school employees.

Although this survey is only a snapshot of New York City's 1,100 schools and many more school users, the results of the survey presented in this report are illustrative

[12] Children's Environmental Health Network, URL: http://www.cehn.org.

of the underlying problems in New York City's public school system. [14] Although the results provide only a snapshot of environmental conditions, they are cause for alarm and for immediate further investigations and remedial actions.

The survey was distributed to respondents on a random basis; there was no targeting of 'environmentally bad' schools, or sick or disabled students or school employees. This survey was given to AFC clients with a range of educational issues; it was also distributed at parent fairs and parent workshops. Other Healthy Schools Network participating organizations distributed the survey to their members as well. All respondents were guaranteed anonymity. Hundreds of the surveys were distributed, sixty-five completed surveys were returned. The largest percentage of the surveys were filled out by students, thus providing a particular rich source of data regarding high schools.

DEMOGRAPHICS

Over forty-three percent of those responding to the survey were students, 6% were teachers, 37% were parents, and 3% were other school employees. 10% of survey participants chose not to answer this question. The majority of those participating in the survey, 35%, were from Manhattan, 3% were from Staten Island, 12% were from Brooklyn, and 21% were from the Bronx, and 2% were from Queens. (26% of respondents chose not to answer this question.)

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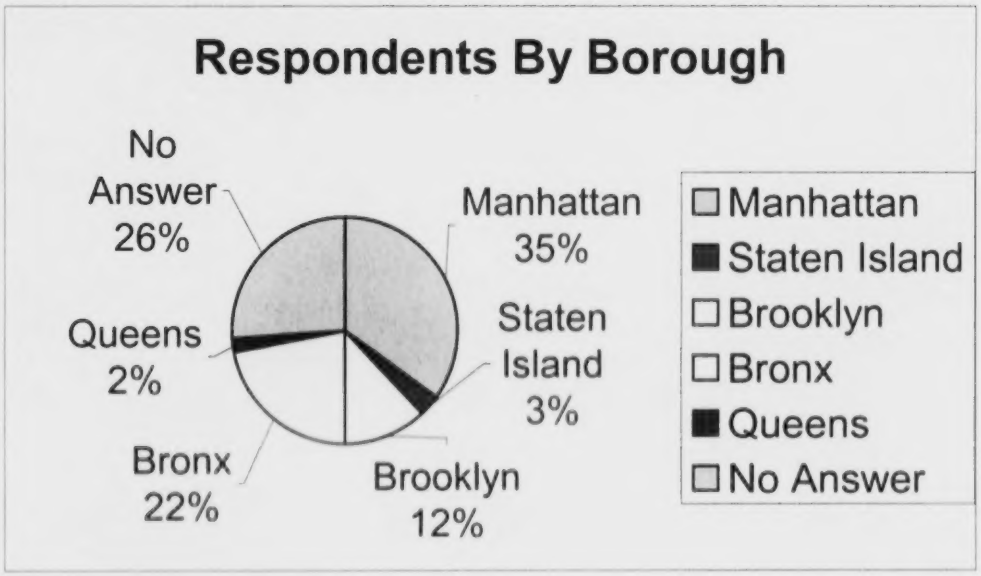
[13] Advocates for Children of New York, Inc., URL: http://www.advocatesforchildren.org/, Healthy Schools Network, URL: http://www.hsnet.org.

[14] This report summarizes the results of surveys filled out by respondents. Neither Advocates for Children nor the Healthy Schools Network have independently verified the answers given in these surveys. It should also be noted that the survey instrument was designed so that respondents, parents, students and school personnel could answer questions with no expertise in the environmental area. The survey did not ask specific questions about such areas as pesticides, lead paint or lead in water, or asbestos, not because these are problems don't exist, but because to answer these questions accurately requires either lab testing, detailed data requests from school custodians, and/or professional expertise in the area.



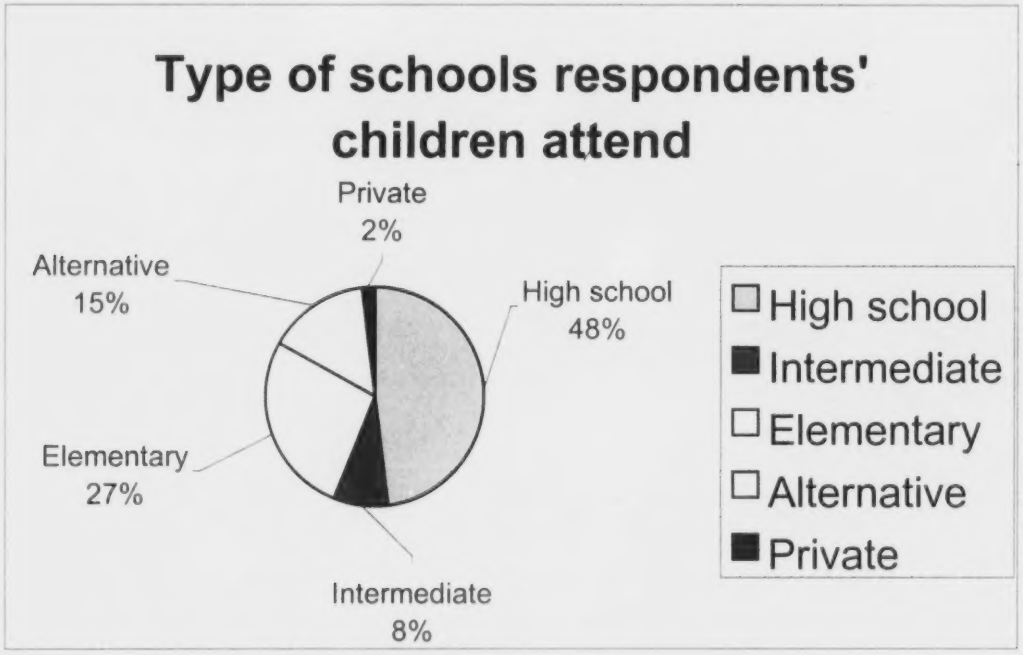
New York City has thirty-two physically defined school districts. High schools are citywide and are a separate superintendency.[15] The respondents came from twelve districts; mainly Manhattan and the Bronx, but the other boroughs were represented as well. District 2 in Manhattan was most heavily represented, with four survey respondents; Manhattan's District 3 and District 9 in the Bronx each had three survey respondents.

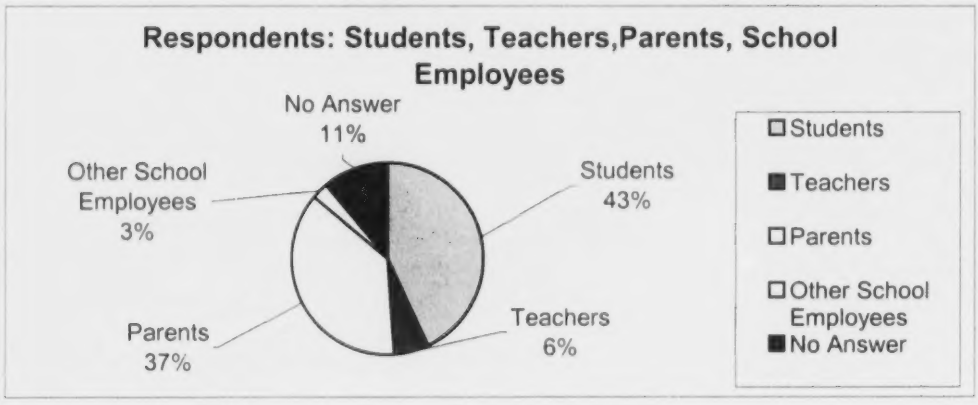
Twenty-nine survey respondents were from the City's high schools and nine more were part of the alternative high school program[16]; sixteen were from elementary schools, and five were from intermediate schools. One survey respondent was from a private,

[15] There are two other districts that do not have physical boundaries. District 33, also called the Chancellor's District is made up of schools with serious records of academic failure. District 75 which has programs throughout the five boroughs, serves some of the most severely physically, emotionally, and cognitively disabled children in New York City. One of our surveys came from a District 75 high school, but was included in the general high school category.

[16] The alternative high schools in New York were set up as an alternative to the large high schools of New York City. Generally they are small, with only a few hundred students and are theme based. Many are based in non-profits or other space that is leased to the Board of Education. A few respondents were using Off-Site Educational Services (OES) which places Board of Education teachers in sites across the city to teach General Equivalency Diplomas (G.E.D.) classes.

Montessori school, which we believe is part of the City's universal pre-kindergarten program. In all, respondents reported on conditions in 39 different schools.





SURVEY ANALYSES

Three different analyses were conducted on the 65 completed surveys.

1. Environmental Health (n = 65). On issues of school conditions affecting the individual's environmental health, surveys from all 65 respondents were tabulated and analyzed.

2. School Facility Snapshot (n = 39). The 65 respondents reported on conditions in 39 different schools. To avoid the bias introduced by having multiple surveys completed on one school, a methodology was adopted. For schools having only one respondent, we used that completed survey; for schools with more than one completed survey, we tabulated only one survey selected at random from surveys completed by that school's occupants.

3. The Problems of Ten Schools (n = 10). For ten different schools with two or more completed surveys we compiled a total list of problems drawn from all the returned surveys. (For one school with eight completed surveys, in the interests of time, we chose at random just three surveys completed by school occupants).

1. Environmental Health at School (N = 65)

In total, 65 people (including students, parents, teachers, and other school employees) responded to the survey. The results, discussed below, focus on the findings from the survey which indicate the environmental health areas that need the most improvement. They include poor indoor air quality and air circulation/ventilation; roach and rodent infestation, chemicals and other odors in the buildings. Twenty-one percent (21%, 12 of 57 responding to the question; 8 did not respond) said their schools were unsafe from an environmental perspective.

According to the National PTA, "It is common to think of air pollution as being an outdoor problem. However, according to the US EPA, the amount of pollution inside buildings may be two to five times, sometimes even 100 times, higher than the pollution outside. In addition, most people spend about 90 percent of their time inside. As a result, indoor air pollution is ranked among the top five environmental dangers to the public,"[17] This information is particularly relevant for students and school employees, who spend many hours each day in schools with poor indoor air quality.

The results of our survey indicate that indoor air quality is a major problem area in New York City public schools. Many respondents complained of inadequate heating and cooling; offensive odors; broken or closed windows; and particulates in the air. This is obviously troubling from a health perspective. It is equally so from a legal one. In almost all the areas we will document below there are already laws in place that

[17]"National PTA Leader's Guide to Environmental Issues," *National PTA*,. URL: http://www.pta.org/programs/envgde3.htm.

recognize the problems and clearly prohibit these conditions in schools.[18] The failure to enforce these laws in schools may be partly due to the fact that they were not designed to protect children but only adults in their workplaces. Existing laws need to be enforced and new legal safeguards specifically designed to protect children at school must be developed.

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[18] **8 NYCRR 155.1(b)(3)(ii):** Educational facilities: Each teaching space shall be provided with a controlled supply of fresh air such that there is an avoidance of odor-build-up or concentration of toxic substances and dust particles.
24 RCNY Health Code §45.11 Physical facilities:
b) A child shall not be kept for any period of time in a cellar without the prior approval of the Department unless the cellar or basement is being used for a lunchroom, or other eating place, for a lavatory or as a washroom.
e) A lighted and ventilated room shall be provided, sufficient in size and arranged so that each child's garments may be hung separately and within reach of the child.
Physical Facilities: When the outside temperature is less than 55 degrees Fahrenheit, and the children are on the premises, a temperature between 68 and 72 degrees Fahrenheit shall be maintained in all parts of the building used by the children. Heating apparatus shall be equipped with adequate protective guards. Gas space heaters shall not be installed or used without the approval of the Department. Kerosene heaters are prohibited.
Enforcement: **24 RCNY Health Code §131.01**: Violations; responsibility: The owner, agent, lessee, tenant and occupant of a building shall be jointly and severally liable for the existence in a building of a nuisance, filthy or unsanitary condition, or condition dangerous to life or health, or violation of any provision of this article, insofar as they have the power to prevent or abate such condition or violation. Such persons shall comply with an order of the Department of Health or the Department of Buildings to remove a nuisance, dangerous or unsanitary condition or violation of this article.
8 NYCRR 155.1(b)(3)(I): Educational facilities: Heating shall be provided and maintained in all areas such that conditions are produced that are suitable for the activity that is to take place in that area.
24 RCNY Health Code §131.03: Heating:
a) A person who contracts to supply heat to a building or any part thereof shall furnish heat to every occupied portion of such building so that the minimum temperature prescribed shall be maintained during the appropriate times.
b) An owner, agent, lessee, superintendent or janitor of a building who has under his/her control a furnace, boiler or other heating device in such building, shall be deemed to have contracted to supply heat unless otherwise provided by express contract.
Enforcement: **24 RCNY Health Code 13103b**: An owner, agent, lessee, superintendent or janitor who is required by this section to provide heat shall be liable for failure to comply with this section, and if any such person is a corporation, the president, vice-president, secretary and treasurer thereof shall also be liable.
NYC Admin Code 17-142: Definition of nuisance: Makes everything that is a nuisance illegal. The word "nuisance" includes everything that is dangerous to human life or detrimental to health. This includes overcrowded buildings, buildings without proper entrances and exits, and inadequately ventilated, sewered, drained, cleaned or lit buildings. It also includes anything that might make air or human food and drink unwholesome.
NYC Admin Code 17-144: Nuisances; who is liable: There is joint and several liability for anyone who is involved with a building—either the owner or occupant—to keep the sewerage, drainage and ventilation of the building in such a condition that it won't be dangerous to the life or health of anyone.
Enforcement: **NYC Admin Code 17-143**: Nuisances; punishment: It is a misdemeanor to willfully refuse to follow an order by the DOH to abate a nuisance.

Many of respondents reported they had asthma or allergies, and felt that the reason behind their aggravated symptoms was the poor indoor air quality in their schools. The incidence of asthma in children in New York City, a subject of a major recent study, was found to be abnormally high in the City's poorest areas. As reported in The New York Times, "Hospitalization rates were as much as 21 times higher in poorer, minority areas than in the hardest-hit areas of the more affluent communities. High rates of hospitalization are one of the most accurate indications of the widespread severity of the disease, the researchers said."[19] Since most or all of these children attend or will attend public school it is all the more important that school conditions not exacerbate what can become a life threatening condition. Currently, asthma is one of the leading causes of school absenteeism due to chronic illness.

Forty percent of respondents (23 of 57 responding to this question; 8 did not answer) had some sort of medical condition; among the 23 reporting a medical condition, an astounding 39% (9) had asthma and 39% (9) had allergies.[20] Of those with medical conditions, 39% (9) felt that their condition was made worse by the air quality or cleanliness of the school. (Note: these are not all the same nine individuals.) Cited as causes of air contamination were construction, general problems, pesticides, toxic cleaning fluids, and dirt and garbage. Fourteen percent (14%, or 8 of 56) reported sensitivity to air or fumes in schools and 12% (6 of 50) reported more frequent or more serious asthma or allergy attacks during the school day. Among those affected by fumes, 7% (3 of 43) said cleaning fluids caused medical problems for them or people they knew, including vomiting, headaches, and allergies.

When asked if their school was safe, one respondent explained his/her concern as, ***"Unventilated classrooms! Very concerning for asthma, bronchitis infections, and hypertension,"*** [21] ***Furthermore***, when asked what in particular about the air quality was bothersome, several respondents specifically mentioned the presence of dust in the air, with responses such as ***"The dust in the air kicked up my allergies and I was miserable"***

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[19] Holcomb B. Noble, "*Far More Poor Children Are Hospitalized for Asthma, Study Shows*," The New York Times, July 27, 1999.

[20] These numbers are of particular importance considering that the majority of those responding to the survey were students.

[22] and ***"The dust has an old odor."*** [23] One respondent in particular, who has asthma as well as anemia and diabetes, gave several disturbing responses. When asked about the medical conditions worsening from the indoor air quality, this student stated, ***"We have seven floor*** (sic) ***in my school. We have elevators, but to obtain an elevator pass, one must be checked by the school nurse, many people fail, and have to walk up the steps."*** [24] When later asked what brings on more frequent or serious attacks, the same student responded, ***"Racing up to class on the seven flight*** (sic) ***of stairs in school, passing through a floor where there is a high smell of ink from the printing press."***[25] This response is disturbing for several reasons: first, because this asthmatic student must go up seven flights of stairs each day to get to class, and second, because the possible hazardous pollutants from the printing presses appear not to be properly ventilated. Such requirements on this child, depending on her condition, may be a violation of Section 504 of the Rehabilitation Act and/or the Individual with Disabilities and Education Act. All too often, printing presses and copy machines are not well ventilated, and can pose health risks for those teaching, working, or learning in the vicinity.[26]

2. Snapshot of School Conditions (n = 39)

This section of the survey report is based on an analysis of 39 separate surveys, 14 from students, 4 from teachers and other school staff, and 21 from parents. (See comment on methodology, above).

One-quarter of respondents (26%, 10 of 38; one did not answer this question) did not consider their schools environmentally safe. Other problems included:

General facility deficits:

- ✓ 18 % (7 of 39 survey respondents) said their school had inadequate lighting; asked differently, 10 of 33 respondents (30%) said the lighting was not

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[21] Survey 14; see fn. 16 for applicable law.
[22] Survey 49.
[23] Survey 65.
[24] Survey 16.
[25] Survey 16.
[26] "Twelve Steps Toward a Healthier School," *Environmental and Human Health, Inc.*, http://www.ehhi.or/12steps.html., see fn. 16 for applicable law.

satisfactory, including two citing classrooms and seven citing halls as having unsatisfactory lighting

- ✓ 26 % (10 of 39 schools) had crumbling walls or ceilings
- ✓ 9 % (3 of 34) had no gym
- ✓ 35 % (13 of 37) had no playground
- ✓ 14 % (5 of 37) had no auditorium
- ✓ 24 % (8 of 33) had cracks in walls or ceilings of classrooms
- ✓ 18 % (6 of 34) had cracks in walls or ceilings of halls
- ✓ 27 % (8 of 30) had peeling paint in classes
- ✓ 17 % (6 of 35) had windows painted or nailed shut in classes or bathrooms
- ✓ 33 % (11 of 33) had poor ventilation/air circulation
- ✓ 73 % (27 of 37 schools) had no air conditioning, raising questions about their suitability for summer sessions for everyone, but especially for those on medications or with pre-existing health problems
- ✓ 24 % (6 of 25) had no heat or inadequate heat
- ✓ 43 % (12 of 28), without fans or vents and 4 reported with non-working fans/vents
- ✓ two of 34 (6%) schools had no water fountains
- ✓ 25 % (8 of 32) had fountains that did not always work

Health of Occupants:

- ✓ 42 % (16 of 38) had personal medical conditions, although clearly every school in every municipality will have occupants with health problems
- ✓ 42 % (6 of 14) reported that the building conditions made the health of occupants worse
- ✓ 31 % (11 of 35 schools) had offensive or musty odors
- ✓ 21 % (6 of 29) had toxic smells from cleaning fluids

Fire Safety:

- ✓ 35 % (9 of 26), without accessible fire alarms or extinguishers in classes, four without alarms or extinguishers in halls and 12 without them in auditoriums

- ✓ 15 % (4 of 27) respondents were unaware of a safe strategy for exiting the school

Overcrowding and class space:

- ✓ 42 % (14 of 33) of schools were overcrowded, 11 with more than 30 in each class, four holding classes in halls, two in auditoriums, and six without sufficient desks or chairs. Comment: Overcrowding can also affect fire safety, air quality, cafeterias, lavatories, building heating and cooling, and the ability to keep a building clean as well as complete minor repairs in a timely fashion.

Sanitation:

- ✓ 9 % (3 of 33) schools were reported as having sinks or toilets that did not function properly; 8 schools were reported having these facilities break down once a month or more often, and six had them out of order for a few days to a month at a time
- ✓ 34 % (11 of 32) had no soap in the bathrooms
- ✓ 20 % (7 of 35) had no toilet paper
- ✓ 45 % (14 of 35) did not have clean bathrooms
- ✓ 17 % (6 of 35) had brown or discolored water from faucets or fountains, and one was reported as having water with an offensive odor
- ✓ 37 % (13 of 35) had water that tasted strange
- ✓ 24 % (8 of 34) had dirty cafeterias
- ✓ 19 % (7 of 36 schools) did not have clean floors in cafeterias
- ✓ 17 % (6 of 36) did not clean up spills or food waste adequately
- ✓ 40 % (12 of 30) had garbage or discarded waste around the school
- ✓ 26 % (8 of 31) had evidence of roach or rodent problems

External pollution sources:

- ✓ 31 % (9 of 29) had school buses parked outside; at six schools these buses leave their engines on, sometimes as long an hour or more

- ✓ 34 % (10 of 29) were near bus depots, one was near a waste transfer station and another was near a sewage treatment plant

Playgrounds and equipment:

- ✓ 38 % (10 of 36) schools were reported as having no safety equipment such as rubber padding or matting for use on the playground
- ✓ 21% (6 of 29) had glass or other debris on the playground
- ✓ 35% (13 of 37) stated their schools did not have a playground at all
- ✓ Indoor areas fared better, with 94 % of schools reported as having a usable gym and 24 of those having safety equipment in the gym

Discussion:

Once the public school buildings of New York City were "Cathedrals of Learning", built by architects to inspire the children of New York to learn and succeed. Part of the old design features that promoted public health and controlled disease were large windows and high ceilings that helped with indoor air quality. Schools were also built on corner lots or with inset or interior courtyards to promote cross-ventilation. In addition, fifty to sixty years ago when many of the school facilities were in their prime, far fewer cleaning chemicals were in the marketplace, and few pesticides. At that time, children may have spent more hours playing out of doors. Today, however, children and most adults spend most of their time in indoor environments. The building decay of these schools has undermined learning and health, and provided children with daily role models of civic neglect and negligence. These unintended lessons have health and learning effects today, and may have unintended consequences tomorrow.

According to the US GAO report "Condition of America's Schools" an estimated 24% of New York State schools had indoor air problems; another 36% had ventilation problems; 21% had inadequate heating; 16% inadequate lighting; 28% poor plumbing; and some 11% life safety (fire) code problems.[27] The results of this survey concur with the results of the federal survey. In our survey, while there was no direct question on

[27] GAO Report, see fn. 4.

indoor air pollution, 33% of schools were reported by survey respondents to have ventilation problems, 24% inadequate heating, 18% inadequate lighting, and 21% had plumbing that regularly breaks down; and fire safety was also deemed a problem.

Air Quality

A major concern was the lack of fresh air in schools. Seventeen percent of those responding said that some windows in their school are either painted or nailed shut; the estimates of how many windows ranged from one to 20. Four respondents had noticed windows painted or nailed shut in classrooms. Similarly, three said there were broken windows in their schools, in one case as many as 75.[28] When asked if their school's windows open, one student responded, ***"They only let it open a little they have rules."***[29] This is problematic considering the number of responses indicating poor ventilation; if the windows either can't open or aren't allowed to be opened, this could be an indicator of Tight Building Syndrome, a condition in which buildings are sealed but have inadequate circulation and ventilation. "An analysis of the city's most recent school-by-school engineering survey by The New York Times shows that at least 40 percent of the 1,100 school are plagued by porous roofs, disintegrating facades or windows that do not open or shut."[30] A porous roof does not provide building ventilation; it provides for water infiltration, which sets up damp conditions for mold growth and contamination. Many survey respondents spoke of odors and fumes in school buildings. Combined with the aforementioned poor ventilation, this can be dangerous to children's health. Thirty-two percent stated there was an offensive or musty odor in the building, and seven respondents (in the larger survey of 65) said they could pinpoint the source of the odor; the most frequent answers were the trash and the bathrooms. Furthermore, 21% complained of a strong, toxic smell coming from the cleaning fluids; most said the fumes smelled like ammonia, bleach, or chlorine.

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[28] Survey 42; see fn. 16 for applicable law.
[29] Survey 53; see fn. 16 for applicable law.
[30] Jacques Steinberg, "Discord Undermines Efforts to Repair and Build Public Schools," *The New York Times*, July 27, 1999.

One respondent wrote that the fumes ***"Smell very high and gives me a burning sensation in my nose,"***[31] while another said that they ***"Smell like harsh bleaches or ammonia and it burns my nose and gives me headaches."***[32] Clearly, the use or mis-use of these cleaning agents is counterproductive, as it is interfering with learning by causing or exacerbating health problems.

Basic cleaning agents like these, when properly diluted and applied with good ventilation and drying times, can be used without undue health effects; there are, however, 'greener' products on the market that avoid strong or irritating odors and clean effectively. [33]

Pests and pesticides.

Roaches and rodents are environmental hazards for several reasons. Not only do they carry diseases that can be transmitted to humans, but they can also aggravate existing conditions in humans, such as allergies or asthma. Furthermore, the pesticides used to combat these vermin can cause serious health effects in humans. The National Institute of Environmental Health Sciences stated that, "Respiratory problems, especially asthma caused by allergic reactions, are linked to antigens found in cockroach feces, saliva, eggs, and shed cuticles." A study completed by the Department of Agriculture's Agricultural Research Service found that cockroach antigens remain in the same concentrations for at least five years and cleaning a room removed only 90% of the allergen. Another study concluded that cockroaches were the most common cause of asthma in inner city children" [34]. Again, laws exist in New York that prohibit pest infestations in schools.[35]

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[31] Survey 16.

[32] Survey 49; see fn. 16 for applicable law.

[33] "Guide to Healthier Cleaning Practices and Products for Schools," Healthy Schools Network, September 1999.

[34] "Environmental Health Questions and Answers," *National Institute of Environmental Health Sciences*, URL: http://www.niehs.nih.gov/external/faq/asthma.htm.

[35] **24 RCNY Health Code 151.03**: Eradication measures; mandatory extermination; conditions conducive to rodent or insect and other pest life prohibited: All buildings and yards must be kept free from rodents, insects, and other pests. All buildings must be kept free from conditions that might lead to rodent, insect or other pest infestation. The person in control shall not let water, garbage or other waste accumulate. All garbage should be deposited in tightly covered, watertight metal cans. If the building is infested, the person in control shall act to eliminate the problem.

Of those responding to the survey, 25% (8 of 31) said their school had a roach or rodent problem. Many respondents said that their roach/rodent problems were not very serious, but then went on to describe instances in which they had seen mice or roaches. This in itself is problematic, as it may indicate the low standards many respondents have in terms of pest infestation at their schools. One student replied that the roach/rodent problem in his/her school was, ***"Not that serious, I seen mice. I was at the auditorium sitting watching a performance and I felt something run over my feet. I look down a*** (sic) ***saw a mice*** (sic)***, in class I saw one too."***[36] Another respondent commented that the pest situation was ***"BAD! Vermin in the classrooms,"*** and then went on to say that, ***"The lunchroom at LaGuardia is horrible in terms of sanitation. People find bugs in the food and it is very filthy."***[37]

As discussed previously in the introduction, the pesticides used to combat pests such as roaches and rodents can, in their own right, be dangerous to children's health. Pesticides are poisons, designed to kill pests, but can also do a great deal of damage to humans, especially children, who are already more exposed to pesticides than adults. "Six million children live in poverty in America's inner cities. These children are at high risk of exposures to pesticides that are used extensively in urban schools, homes, and day-care centers for control of roaches, rats, and other vermin…In New York State in 1997, the heaviest use of pesticides in all counties statewide was in the urban boroughs of Manhattan and Brooklyn," [38] Pesticides are most likely to target the nervous system, but can also damage the brain, disrupt the immune system, and increase the risk of cancer. [39]

The dangers of pesticides have become so widespread and so apparent that the US EPA has been called upon by numerous health, food safety, and environmental groups to ban the use of a common pesticide on food products. [40] EPA is in fact unable to keep up

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Enforcement: **24 RCNY Health Code 151.03c**: When the Department of Health makes the determination that a building is infested, it may order the person in control to take such eradication measures as the Department deems necessary.

[36] Survey 32; see fn. 31 for applicable law.

[37] Survey 23; see fn. 31 for applicable law.

[38] Dr. Philip Landrigan, "Pesticides and Inner-City Children: Exposures, Risks, and Prevention," *National Institute of Environmental Health Sciences*. URL: http://ehpnet1.niehs.nih.gov/docs/1999/suppl-3/431-437landrigan/abstract.html.

[39] "National PTA Leader's Guide to Environmental Issues," *National PTA*, URL: http://www.pta.org/programs/envgde3.htm.

[40] "Citing Children, EPA is Banning Common Pesticide," *The New York Times*, August 3, 1999.

with the safety testing on a wide range of chemicals used in pesticides and cleaning products. None have been tested for safety on children and few have been tested in combination with others. Pesticides and their top-secret inert ingredients, like other toxic chemicals, are linked to learning disabilities, autism, attention deficit disorder, cancers, and other serious health problems.

Structural Problems

Structural problems such as cracks or holes in the walls and ceilings; cracked ceilings; and peeling paint were all addressed in the survey. These problems can, for the most part, be attributed to the fact that most of New York City's schools have been poorly maintained for many years. The legacy of deferred maintenance and lack of code enforcement is endangering students and school employees. While some groups have found 50 years to be the life span of a school[41], many well-maintained civic and commercial buildings are as old or older.

One-quarter of those responding had noticed cracks in the ceilings of classrooms, and 18% reported cracks in the ceilings of hallways. Some comments about the structural integrity of the school were basic. One survey respondent told this story: ***"There's scaffolding all around the building because the pointing is falling down. A few years ago and*** (sic) ***one of the old ceiling skylights shattered—thanks goodness not during a school day so no one was injured."***[42]

Other issues are not as obvious, but potentially as dangerous. Cracks in walls and ceilings are problematic in that they indicate weaknesses in the building's structure, and can expose people to lead and asbestos, and they also provide areas for roaches and other vermin to hide and breed. They can create dust, a condition that was noted by several survey respondents. One respondent, a parent, complained that, ***"Four years ago the board of education spent three million dollars to repair crumbling walls and ceilings. The job was not done properly and the conditions are returning. This should be reported to the public to see how SCA [the School Construction Authority] wastes***

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[41] Jacques Steinberg, "Discord Undermines Effort to Repair and Build Public Schools," *The New York Times*, July 27, 1999. "The board and [School Construction] authority were overwhelmed by the job of rebuilding a deteriorating system with more than 1,100 school buildings, half built before 1940."
[42] Survey 54.

money!" [43] The same parent, when later asked about worsening medical conditions, said, ***"The crumbling walls and ceilings are spreading lead dust in the air. The students reported feeling better when the walls and ceilings were repaired but as they fall apart again the children are feeling worst*** (sic)"[44].

The results of the survey also indicated that peeling paint was an issue in many of the schools. Twenty seven percent reported peeling paint in classrooms, and 13% in hallways. Several survey respondents specifically stated that this was an area in need of improvement. When asked about general safety violations, there were comments such as, ***"Paint job that's all,"*** [45] ***and "Still have chip paint*** (sic) ***hallway door."*** [46] Since most paint had lead in it until it was banned in the United States in 1978, and since the majority of New York City's schools are over 50 years old and therefore almost certainly have lead paint on their walls, it is imperative that old paint layers remain covered and intact to protect children from exposure. The same issue exists for old playground equipment, especially in elementary schools. The Consumer Product Safety Commission says this threat is "primarily to children six years and under. Some equipment was painted with lead paint, and over time, the paint has deteriorated into chips and dust containing lead, due to exposure to sunlight, heat, moisture, and normal wear and tear. The lead paint chips and lead dust can be ingested by young children who put their hands on the equipment and then put their hands in their mouths."[47] In either case, there are laws on New York's books to address this problem.[48]

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[43] Survey 41.
[44] Survey 41.
[45] Survey 22.
[46] Survey 65.
[47] "Questions and Answers: Lead Paint on Public Playground Equipment." *Consumer Product Safety Commission.* URL: http://www.cpsc.gov/lead/leadqa.html.
[48] **NY CLS Pub Health §1373**: Abatement of lead poisoning conditions: Whenever the commissioner or his representative shall designate an area of high risk, he may give written notice and demand, for the discontinuance of a paint condition conducive to lead poisoning in any designated dwelling in such area within a specified period of time.
Enforcement: **NY CLS Pub Health 1373**: In the event of failure to comply with a notice and demand, the commissioner or his representative may conduct a formal hearing upon due notice in accordance with the provisions of section twelve-a of this chapter and on proof of violation of such notice and demand may order abatement of a paint condition conducive to lead poisoning upon such terms as may be appropriate and may assess a penalty not to exceed two thousand five hundred dollars for such violation
An environmental assessment of areas a child frequents will be conducted by the State Department of Health for children with elevated lead blood levels in order to determine the source of the child's lead

Overcrowded Classes and Schools.

Overcrowded classrooms and classes held in nontraditional spaces are environmental hazards for a variety of reasons. Not only are they less conducive to learning, but illnesses spread more quickly in crowded classrooms. Moreover, according to "Running on Empty," a report by the Campaign for Fiscal Equity, "Recent national research which demonstrates a strong link between smaller classes and improved student achievement has led to major initiatives in class size...It is clear that New York City's schools have a substantial need for these promised class size reduction resources."[49]

Forty-two percent (14 of 33) of those responding to this survey thought that schools were overcrowded. It is easy to see why they felt that way, as 28% then indicated that there were thirty or more or more students in a class. A parent considered the school safe, ***"Except for overcrowding,"***[50] and a student echoed similar sentiments by stating that the most obvious safety risk was that, ***"The school was overcrowded."***[51]

Strikingly, many indicated that classes were being held in a variety of nontraditional spaces, such as hallways (4 of 31, 13%) and auditoriums (2 of 29, 7%). Furthermore, these classrooms, both traditional and nontraditional, were ill equipped for learning, as 18% (6 of 34) indicated that there were not enough desks and chairs to go around. Additionally, two respondents said they felt the lighting was not satisfactory in classrooms, and 23% (7 of 31) said the same of hallways. Once again, there are clear laws on the books regarding overcrowding and proper lighting requirements.[52]

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poisoning. The process could lead to an environmental assessment of the child's school if the home is found to be lead free.

24 RCNY 45.12, 47.01, 47.31 and 49.01 The City DOH can order or take actions against any lead paint hazard under its general power to abate a nuisance. In schools, it can also order lead-based paint abatement under regulations against peeling paint and lead-contaminated surfaces accessible to children.

[49] "Running on Empty: High Standards and Missing Resources in New York City's Public Schools," A Report by Campaign for Fiscal Equity, Inc., March 1999.

[50] Survey 44.

[51] Survey 49.

[52] **24 RCNY Health Code §49.07**: Physical facilities: The minimum allowance of space for each child in a classroom shall be 15 square feet of net floor space, that is, available space exclusive of furniture. Children shall not be permitted in a school or in a classroom in excess of the number allowed by this subsection except in the event of "a temporary emergency."

8 NYCRR (b)(2)(iv): Educational facilities: Teaching spaces shall be properly proportioned as to size and shape of room.

Fire Safety.

There are few images more frightening than that of a fire breaking out inside a school. Shockingly, the results of our informal survey indicate that some schools would not be prepared for such an emergency. One student felt that an obvious safety violation was, ***"The school has 10+ floors and a 1000+ students, I don't recall seeing extinguishers and the school rarely has fire drills!"***[53] Nearly half, 44% (17 of 39) of those responding to the survey said fire extinguishers and alarms were not easily accessible in classrooms. Similarly, 52% (12 of 23) said that extinguishers and alarms were not accessible in the auditorium. Furthermore, 22% (5 of 23) said their schools lacked illuminated fire signs, and of those with the signs, one said that they did not work. Fifteen percent (4 of 27) of those responding said their school lacked a strategy for exiting the building safely and quickly. When these statistics are combined with the poor ventilation and overcrowding, as inadequately lit halls, it would appear as though a disaster is only waiting to happen in New York City's public schools.

Drinking Water Quality

The US EPA estimates that in 1998, approximately 30 million Americans drank water from systems that violated one or more public health standards.[54] Keeping this in mind, it is all the more disturbing that in our survey 18% (6 of 33) responded that the

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[53] Survey 34. Lack of fire drills is a clear violation of law:
NY CLS Educ. 807: Fire drills: It is the duty of the principal or other person in charge of the school to have twelve fire drills each school year. If one of these drills does not occur during lunch, than students need to be instructed on the procedure to follow if a fire does occur during lunch. If there is summer school at a school, then two fire drills should be held, one in the first week of summer school. If there is an after-school program in the school building, attended by people who don't regularly attend classes in the building, then the person in charge of the event, at the beginning of the event, must instruct the audience on what to do in the event of a fire.
Enforcement/Punishment: **NY CLS Educ. 807**: Neglect by any principal or person in charge to comply with the provisions shall be a misdemeanor punishable at the discretion of the court by a fine not exceeding $50. The fine is to go to the pension fund of the local fire department where there is such a fund.
NY CLS Educ. 808: Instruction in fire and arson prevention: the commissioner of education must provide and prescribe a course in fire and arson prevention relating to the protection o life and property against loss or damage as result of a criminally initiated or other preventable fire. Such instruction shall be given to all students in every school for a period of not less than 45 minutes in each month school is in session.
Enforcement: None
24 RCNY Health Code 45.09e: Staff: All employees shall be regularly instructed in the protection of children during emergencies such as accidents, fires or air raids.
Enforcement: 24 RCNY Health Code §3.05

water coming out of the tap in their school was brown or discolored, and one said it had an offensive odor. One student reported that, ***"Water in the school smelled like sea water,"***[55] and a parent said of the water's taste, ***"It's blah!"*** [56] One parent in particular specifically stated that the reason why he/she did not feel his/her school was a safe space was because, ***"The plumbing looks old."*** [57] According to the National PTA, this is certainly a valid concern, as "Drinking water is another source of lead poisoning. Lead gets into drinking water when old pipes in the plumbing of a building wear down or corrode, or when lead solder is used to connect pipes."[58] There are numerous laws regarding lead in water.[59] Nevertheless, no school is required to test for lead at the tap.

Furthermore, although most survey respondents (32 of 34, 94%) reported having water fountains in their schools, 25% (8 of 32) indicated that the water fountains did not always work, meaning that students and school employees did not have access to drinking water throughout the school day. This too is a violation of law.[60]

Public Health Problems at Schools

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[54] "Environmental Health Threats to Children," *Environmental Protection Agency*, URL: http://www.epa.gov/epadocs/child.htm.

[55] Survey 49.

[56] Survey 58.

[57] Survey 28.

[58] "National PTA Leader's Guide to Environmental Issues," *National PTA*,. URL: http://www.pta.org/programs/envgde3.htm.

[59] Federal:

42 USC 300f et seq.: The Safe Drinking Water Act

40 CFR Part 141: National primary drinking water regulations,

40 CFR Part 142: National primary drinking water regulations implementation

Enforcement: State Department of Health is responsible for implementing lead in drinking water programs

42 USC 300j-24: Lead contamination in school drinking water: The administrator shall publish a guidance document and a testing protocol to assist schools in determining the source and degree of lead contamination in school drinking water supplies and in remedying such contamination. This section also provides for the establishment by each state of a program to help local educational agencies in testing for and remedying, lead contamination in schools.

42 USC 300j-25: Federal assistance for State programs regarding lead contamination in school drinking water: The administrator shall make grants to States to establish and carry out State programs to assist local educational agencies in testing for, and remedying, lead contamination in drinking water from drinking water coolers and from other sources of lead contamination at schools.

[60] **24 RCNY Health Code §45.11** Physical facilities:

f) Drinking water shall be available near classrooms and playrooms and easily accessible to the children. Except when bubbler fountains are used, individual drinking cups shall be provided within reach of the children. If bubbler fountains are used, they shall be of the angle jet type with suitable guards and shall have water pressure which is sufficient to raise the water high enough above the spout to avoid contamination.

Clean and functional bathrooms, with toilet paper and soap, and clean cafeterias with fresh food and clean utensils, seem more like necessities than privileges, but unfortunately, many survey respondents indicated that they were being denied these basics, most of which are guaranteed by law.[61]

Although most indicated that the sinks and toilets worked properly (30 of 33), when later asked how often the sinks and toilets broke down, a larger number of respondents answered affirmatively, with 5 stating sinks and toilets broke down once a month; 3 stating they broke down once a week or more often. When further asked for how long the sinks and toilets break down, six respondents said they break down for a few hours to one month at a time. When asked if the school was considered to be a safe space, a student commented, ***"In a way no because at times it's not exactly a safe space in terms of plumbing and bathroom situation,"***[62] and added that safety concerns included, ***"Plumbing, flooded toilets, no toilet tissue."***[63] When asked if toilet paper was available, 20% of respondents answered no or only sometimes. Soap was not available for 34% of respondents, and one parent commented that soap was only available ***"In the classroom not in the children*** (sic) ***bathroom."***[64] A significant percentage of respondents (42%) indicated that the bathrooms are not clean, and one astute parent commented that, ***"Overcrowded school leads to over-used bathrooms which sometimes get smelly- especially kindergarten's ones."***[65] Other comments indicated that at least in some cases, ***"The teachers' bathrooms are cleaner"***[66] than the students'.

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[61] **24 RCNY Health Code §45.13**: Equipment and furnishings: e) Soap and individual paper or cloth towels or sanitary dryers shall be provided adjacent to wash basins and within easy reach of the children. If combs or washcloths are provided, each child have such articles for his/her exclusive use.
NYC Admin Code 17-142: Definition of nuisance: Makes everything that is a nuisance illegal. The word "nuisance" includes everything that is dangerous to human life or detrimental to health. This includes overcrowded buildings, buildings without proper entrances and exits, and inadequately ventilated, sewered, drained, cleaned or lit buildings. It also includes anything that might make air or human food and drink unwholesome.
Enforcement: **NYC Admin Code 17-143**: Nuisances; punishment: It is a misdemeanor to willfully refuse to follow an order by the DOH to abate a nuisance.
NYC Admin Code 17-144: Nuisances; who is liable: There is joint and several liability for anyone who is involved with a building—either the owner or occupant—to keep the sewerage, drainage and ventilation of the building in such a condition that it won't be dangerous to the life or health of anyone.
Enforcement: **NYC Admin Code 17-143.**
[62] Survey 7.
[63] Survey 7.
[64] Surveys 4, 5.
[65] Survey 19.
[66] Survey 53.

One-quarter of respondents (24%, 8 of 34) indicated that the cafeterias were not clean, and 22% (7 of 32) said that the floors were not clean. Not only are clean floors unsanitary, but as dirt and waste accumulate on the floors, the risk of injury and of pest infestation also increases. Three of 31 respondents further indicated that the food served in their cafeterias was not fresh, and 26% (9 of 34) said that spills and food waste are not or seldom cleaned up adequately.

To further emphasize this point, 40% (12 of 30) of respondents indicated that garbage and discarded waste are present around the schools.[67] While the survey does not identify if the source of the garbage is the school, some comments lead to that conclusion. One student said that he/she was able to identify the musty or offensive odor in his/her school as, ***"The smell of food garbage, when you sit down, when you pass by the garbage outside, sometimes in the classroom it smells so awful like sweat."*** [68] Clearly, the smell of food waste from the cafeterias or from sources near the schools should not be reaching classrooms and affecting children.

Playgrounds

Children in school should have access to a playground; this is a right protected by the New York City Health Code, which states that children cannot be kept in school for more than five hours without being given a recreation period during which the outdoor play space should be used whenever the weather permits.[69] Another law states that no school may be constructed in New York City without being attached to an open-air playground.[70] Given these laws, one would assume that all children attending New York

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[67] Because of possible pest infestation such actions are illegal. See fn. 31 for applicable law.

[68] Survey 29.

[69] **New York City Health Code, Section 49.13**.

[70] **NY CLS Educ. 2556(5):** Buildings, sites, et cetera: It shall be unlawful for a schoolhouse to be constructed in the city of New York without an open-air playground attached to or used in connection with the same.
8 NYCRR 155.1©(1): Educational facilities: All building sites shall have the right number of grounds for outdoor activities. In elementary schools the right amount is three acres minimum plus one acre for each 100 pupils thereafter. In secondary schools the right amount is 10 acres plus one acre for each 100 pupils thereafter. This can be waived with the commissioner's approval
24 RCNY Health Code 45.11: Physical Facilities: Indoor and outdoor play areas shall be available for the use of the children. Such play areas shall be safe, clean, easily accessible, adequate in size and suitable for the needs of the children. A shady area shall be available in outdoor play areas used during the summer months.

City's public schools would have access to playgrounds. However, over one-third of those responding to the survey—a startling 35% (13 of 37) -- said that their schools did not have a playground. Of those with playgrounds, 38% of respondents said that no safety equipment, such as rubber padding, matting, etc., was available for use on the playground. Twenty-one percent (6 of 29) complained that their playgrounds were strewn with pieces of glass and other debris—obvious safety hazards [71]

3. The Problems of Ten Schools Covered In This Survey

NOTE: The report's creators did not verify these problems listed below. The issues are meant to give the reader a sense of the range, complexity, and interconnectedness of problems reported by survey respondents. These schools are not being highlighted because they stood out and particularly violated health and safety requirements, but because they had multiple survey respondents discussing the conditions in these schools.

CIS 82 (two students)
Broken steps; crumbling wall/ceilings with cracks; medical conditions for both students made worse by school conditions, specifically dirt and garbage; peeling paint; windows painted or nailed shut; broken windows; poor ventilation; no air conditioning; offensive or musty odors in building; fans and vents don't work; illuminated fire exit signs don't work; classrooms overcrowded; desks not serviceable; water fountains don't always work; toilets don't always work and may break down daily or weekly; no soap in bathrooms; no toilet paper; brown or discolored drinking water; water has offensive odor and tastes funny; cafeteria not clean; food not fresh; cafeteria floors not clean; spills not cleaned up adequately; dirt and garbage around the school; bathrooms not clean; pest problem; lighting poor in halls; bus depot and waste transfer station near the school.

LaGuardia High School (one student, one unidentified respondent)
Blocked fire exits; windows painted or nailed shut; windows broken; poor ventilation; inadequate heat; toxic smell from cleaning fluids; no fire extinguishers or alarms in classrooms or auditorium; illuminated fire signs don't work; classes overcrowded; insufficient desks/chairs; water fountains don't work; sinks and toilets don't function properly, breaking down weekly; no soap; no toilet paper; brown or discolored water from fountains and with funny taste; cafeteria not clean; eating utensils not clean; floors not clean; food not fresh; spills not cleaned up adequately; garbage around the school; bathrooms not clean; pest problem; bus depot and transfer station near school.

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24 RCNY Health Code 45.13: Equipment and furnishings: In the indoor and outdoor play areas, sufficient play equipment shall be provided which is appropriate to the stage of development of the children and which is designed to foster physical and motor development. The equipment shall be easily accessible to the children, readily washable, clean, in good repair and free from hazards such as sharp or pointed parts, or toxic or poisonous finishes or materials.

[71] **24 RCNY Health Code 45.11**, see fn. 68 for full text.

Grace Dodge Vocational High School (two students, one parent)
Blocked fire exits; inadequate lighting; crumbling walls/ceilings with cracks; medical conditions made worse by building conditions, specifically indoor air; peeling paint; windows broken; poor ventilation; offensive or musty odor in building; fire extinguishers or alarms not in classrooms or auditorium; overcrowded classrooms; desks not serviceable; water fountains don't work; sinks/toilets don't work, breaking down once a month for a week or more; no soap; no toilet paper; drinking water has an offensive odor; cafeteria not clean; floors not clean; spills not cleaned up adequately; garbage around the school; pest problem; unsatisfactory lighting; bus depot and transfer station near school; glass and debris on playground.

PS 217 (three teachers)
Ceiling leaks in classrooms; no fire extinguishers or alarms in classes or auditorium; overcrowded classrooms, with classes held in halls; no soap or toilet paper; drinking water has funny taste; garbage around the school; bathrooms not clean; bus depot near school.

Roosevelt High School (three students)
Inadequate lighting; crumbling walls/ceilings, with cracks; windows broken; no air conditioning; heat doesn't work; heat inadequate; offensive odor or musty smell in building; cleaning fluids have toxic smell; no fire extinguishers or alarms in classrooms; no illuminated fire exit signs; classes overcrowded; insufficient desks/chairs; water fountains don't work; sinks/toilets don't function properly, breaking down daily, some for a month; no soap and no toilet paper; drinking water has offensive odor and tastes funny; cafeteria not clean; garbage around the school; unsatisfactory lighting; bus depot and transfer station near school; gym safety equipment inadequate.

Clinton High School (one student, one school staff)
Crumbling walls/ceilings, with cracks; poor ventilation; no air conditioning; offensive or musty odor in building; toxic smell from cleaning fluids; no illuminated fire safety signs; classes held in hallways; drinking water is brown or discolored and has offensive odor; cafeteria not clean; spills not cleaned adequately; garbage around the school; unsatisfactory lighting; sewage treatment plant near school.

Washington Irving High School (three students)
Inadequate lighting; crumbling walls/ceilings and cracks; medical conditions made worse by building conditions; peeling paint; windows painted or nailed shut; windows broken; poor ventilation; heat not working; inadequate heat; offensive or musty odor in building; fans/vents not working; fire alarms and extinguishers not in classrooms; no illuminated fire exit signs; water fountains don't work; sinks/toilets don't function properly, breaking down daily; no soap; drinking water is brown or discolored and has a funny taste; cafeteria not clean; food not fresh; garbage around the school; pest problem; unsatisfactory lighting; bus depot near school; no safety equipment in gym.

PS 397 (two parents)
Inaccessible fire alarms and fire extinguishers; overcrowded classrooms; classes held in nontraditional spaces (due to overcrowding); garbage around the school; school buses stay parked outside of school with engines running an hour or more.

Offsite Educational Services (OES) at 121 Sixth Ave/Unity HS (three students)
Inadequate lighting; medical conditions made worse by building conditions; heat doesn't work; toxic smell from cleaning fluids; fire alarms and extinguishers not in classrooms; no safe strategy for exiting the building; no illuminated fire exit signs; garbage around the school; unsatisfactory lighting; bus depot and waste transfer station near school; playground lacks safety equipment and gym is not usable.

Walton High School (two students, one respondent not identified)
Inadequate lighting; crumbling walls/ceilings with cracks; medical conditions made worse by building conditions, specifically indoor air; peeling paint; exposed wiring; no air conditioning; heat doesn't work; offensive or musty odor in building; fans/vents present but not working; fire alarms or extinguishers not accessible in classrooms or auditorium; no fire safety exit strategy; overcrowded classrooms; insufficient desks/chairs; water fountain doesn't work; sinks/toilets break down once per month; drinking water taste funny; cafeteria not clean; floors not clean; garbage around the school; bathrooms not clean; unsatisfactory lighting; bus depot and transfer station near school; gym not usable.

CONCLUSION

Although this survey covered a relatively small number of school users and sampling of schools, there is no reason to believe that it does not illustrate problems existing broadly across New York City's public schools. Our City's school buildings, once inspirational "Cathedrals of Learning", are in a state of disrepair and that neglect threatens learning and health. Building maintenance, renovation, construction, and code enforcement, if done at all, has for the most part, looking at the results of this survey, been done badly.

There are simple solutions to many of these problems, some of which cost little or no money to implement. The following are this report's recommendations to address these problems. City, state and federal laws that currently exist need to be properly enforced. In almost all the problem areas cited in this report are laws (documented in the footnotes) prohibiting the circumstances documented in these surveys. There are currently laws on the books that require regular inspections of schools to determine that

safety standards are being met.[72] Certainly in some of the schools that were part of this survey, such inspections, if occurring, are suspect or deeply flawed if they have not documented and then corrected the conditions discussed in the surveys received. Regular and thorough inspections of schools, with proper follow-up to determine implementation if there were environmental or health problems, is necessary.

The New York State Commissioner of Education who has long sought the ability to regulate school conditions throughout the state should be given that authority in New York City.

New York State's Minor Maintenance and Repair program for school facilities must be continued and tied to environmental health and safety results. Building occupants can and should play a role in determining the health of their school and protecting the health of the children. To accomplish this, the New York City Board of Education must be held to the same timetables and standards that all other school districts in the state must follow in the state's new comprehensive school safety program.

While federal, state, and municipal leaders are calling for and installing 21st century computer technology at schools, the same officials should ensure that 20th century sanitary requirements are met. School cafeterias should be clean, garbage around the school should not accumulate and toilet paper and soap should be available in bathrooms. Fire safety precautions must be taken seriously, with regular fire drills and

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[72] **8 NYCRR 155.1(d):** educational facilities: The board of education of each school district is responsible for its facilities to be inspected visually each year. The standards for the inspection will be created by each school district.
12 NYCRR 802.2: Authority for Inspections: Safety and health inspectors and hygienists of the Department of labor are authorized to enter without delay and at reasonable times any building, institution, facility, construction site, establishment or other area workplace or environment where work is being performed by a public employee for the purpose of doing reasonable inspections and investigations of any place of public employment, and all pertinent conditions, structures, machines, apparatus, devices, equipment and materials related to that employment.
Enforcement: **12 NYCRR §802.3:** Objection to inspection: If the DOL inspector is refused permission to due his/her duties, the DOL shall attempt to find out why the refusal was made and shall report the refusal immediately to his/her supervisor. If the refusal is not withdrawn, the Commissioner of Labor shall take necessary actions including the obtainment of compulsory legal process.
12 NYCRR §802.4: Advance notice of inspections: Advance notice of inspections will not be given unless there is a safety issue, or when the inspection would be enhanced by the probability of a more effective and thorough inspection. If advance notice is given, it cannot be given more than 24 hours in advance.
Enforcement: 12 NYCRR §802.3
NY CLS Educ. 409d: Comprehensive public school building safety program: The commissioner must establish, develop, and monitor a comprehensive public school building safety program which shall include

emergency evacuation plans created and ready to implement by the principal and other school employees.

With so many of New York City's public schools suffering from decades of neglect, school construction and renovation is a major issue. "A poorly implemented renovation project can create fire hazards, excessive dust, noxious gases from cleaners, fumes from welding activity, and sometimes exposure to hazardous substances such as lead or asbestos."[73] If one looks at the Board of Education's capital plan, there are many more renovations than new constructions. To serve our children properly more schools will need to be built, and many more properly renovated. Direct federal funding for school construction with new funds linked to improving environmental conditions is needed.

The City can capitalize and expand on already existing resources. The New York City Board of Education has established an excellent non-toxic pest management program that is available to all schools. It should be more strongly staffed and supported. The US EPA has developed and offers free to schools a "Tools for Schools" kit to investigate and fix indoor air problems. Head Custodians, who are already being paid directly by the Board of Education to keep schools, bathrooms, and kitchens clean and functional, need better supervision or more assistance to assure cleanliness in these areas. School maintenance budgets should become "transparent" to ensure accountability and that each school can meet fundamental public health and safety standards.

Environmentally sound "green" schools are obviously the standard of the future. They maximize natural lighting and ventilation, promote energy and resource efficiency, encourage the selection of environmentally benign and non-toxic building materials, and reinforce recycling practices and the use of recycled materials. Federal agencies such as the US EPA and the US Department of Education have major voluntary programs

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a uniform inspection, safety rating and monitoring system. The program will include annual inspections of all school buildings and will develop a safety rating system to assess the need for repairs and improvements

[73] Mark Green, Public Advocate, "Construction vs. Children: The Need to Improve Environmental Safety During Renovation of Schools and Public Housing," April 24, 1996. A recent series of articles in The New York Times examined the flaws in school construction, including the reliance on careless contractors and their lack of supervision. It was stated that, "With the [School Construction] authority now beginning to spend the $7 billion allocated to school construction for the next five years, much of its focus has shifted from building new schools to repairing old ones, often while students are attending classes inside. That has heightened the dangers of bad contractors." Christopher Drew, "Careless Contractors Crumbling Schools", *The New York Times*, July 26, 1999.

focusing on educational buildings, as does the US Department of Energy. The strategy of sustainable design, planning and development pertains to meeting the needs of the present without compromising the ability of future generations to meet their own. These reforms are also the topic of several 'healthy school environments' bills that are currently in the State Legislature; several have passed the Assembly; most have Senate matches. Swift passage and the Governor's signature are required to have building standards meet 21st century environmental health standards.

"Green", "sustainable" and "healthy" schools are synonymous in educational facilities as they strive to create a better environment for children, and school personnel. As we all know, actions speak louder than words. To demonstrate a serious commitment to our children, we need to say that their environmental health is a priority, and then really make it one.

Appendix A:
Survey

To Everyone Filling Out this Survey:

Thank you in advance for filling out this survey. We know you may have a limited amount of time to fill this out , and/or may not be able to find out the answers to all the questions. Please just fill in whatever information you do know. We believe we can help make your schools safer and more healthy places to be by helping us gather this information.

If you write down your name and address we would be glad to send you a copy of our report based on these surveys when it is finished.

Please give this survey back to the person who gave it out to you, or mail or fax directly to:

Jill Chaifetz
Advocates for Children of New York, Inc.
151 West 30th Street, 5th Floor
New York, NY 10001
Fax: (212) 947-9790

1. General Information:

Your name (optional)_____

Are you a Student _____ Teacher _____ Parent _____ Other School Employee_____

What is the name or number of your school?_____

What is the street address/ borough of your school?_____

_____

Do you consider your school to be a safe space or building [fire, plumbing, air]? Yes__ No__
If No, please explain:_____

_____

_____

(Please check all that apply)

Blocked fire exits _____

Broken steps _____

Inadequate Lighting _____

Crumbling walls/ceiling _____

Other (please explain):_____

_____

_____

What is the most obvious safety violation (if any) that you can think of at your school?

_____

_____

_____

Does your school have a gym? Yes ___ No ___

Does your school have a playground? Yes ___ No ___

Does your school have an auditorium? Yes ___ No ___

2. **Personal Health:**

Do you have any medical conditions (allergies, asthma, disability, etc.)? Yes ___ No ___

If yes, what are they?_____

_____

Is your medical condition made worse by the air quality or cleanliness of the school?
Yes ___ No ____

If yes, how (check all that apply):

Construction_____

Indoor Air Quality _____

Pesticide Use _____

Cleaning Fluids _____

Dirt/Garbage _____

Other (please explain)

_____

_____

_____

Do you have any sensitivities to the air or particular fumes in the school building?
Yes ___ No ____

If yes, what about the air or fumes in particular bothers you? Please Explain:

_____

_____

_____

Do you have more frequent or serious asthma or allergy attacks during the school days?
Yes ___ No ____

If yes, what causes your attacks? Please Explain

_____

_____

_____

_____

3. **Walls and Ceilings**:

Have you noticed any cracks or holes in the walls and ceilings of hallway, gym, or classrooms in your school building? Yes ___ No ___

If yes, where? in Classrooms ____ Hallways____ Auditorium ____ Bathrooms ____ Gym ___

Is the paint peeling anywhere in your school? Yes ___ No ___

If yes, where? in Classrooms ____ Hallways____ Auditorium ____ Bathrooms ____ Gym ___

Is there any exposed wiring? Yes ___ No ____

If yes, where? in Classrooms ____ Hallways____ Auditorium ____ Bathrooms ____ Gym ___

Are there cracks in the ceiling? Yes ___ No ____

If yes, where? in Classrooms ____ Hallways____ Auditorium ____ Bathrooms ____ Gym ___

Does the ceiling leak? Yes ___ No ____

If yes, where? in Classrooms ____ Hallways____ Auditorium ____ Bathrooms ____ Gym ___

4. **Windows**:

Are any windows painted or nailed shut? Yes ___ No ___

Approximately how many?_____

Where? in Classrooms ____ Hallways____ Auditorium ____ Bathrooms ____ Gym ___

Are any windows broken? Yes ___ No ___

Approximately how many? _____

Where? in Classrooms ____ Hallways____ Auditorium ____ Bathrooms ____ Gym ___

5. **Air Quality**:

Is the ventilation/air circulation in your school poor? Yes ___ No ___

Do the windows Open? Yes ___ No ___

Does your school have air conditioning? Yes ___ No ___

Does the air conditioning work in your school? Yes ___ No ___

If yes, is it adequate? Yes ___ No ___

Does the heat work in your school? Yes ___ No ___

If yes, is it adequate? Yes ___ No ___

Is there an offensive or musty odor in the building? Yes ___ No ___

If yes, do you know where it is coming from? Yes ___ No ___

If yes, please explain. _____
_____
_____

Are there fans or vents? Yes ___ No ____ Do they work? Yes ___ No ____

Do the cleaning fluids used in the school have a really strong (toxic) smell? Yes ___ No ___

If yes, are the fumes from cleaning fluids too strong? Yes ___ No ____

If yes, please explain what they smell like and why they are too strong._____
_____
_____
_____

Do the fumes from the cleaning fluids cause any medical problems for you or anyone you know?
Yes ___ No ____

If yes, what?_____

_____

6. **Fire Safety**:

Are there easily accessible fire extinguishers and/or fire alarms? Yes ___ No ____

If yes, where? in Classrooms ____ Hallways____ Auditorium ____ Bathrooms ____

How many fire exits are there? ___ Are they easily accessible? Yes ___ No ____

Is there a safety strategy for exiting the building quickly and safely? Yes ___ No ____

Are there illuminated fire exit signs? Yes ___ No ____

Do they work? Yes ___ No ____

7. **Classrooms**:

Are any of your classrooms overcrowded? Yes ___ No ____

If yes, how many students are in the class? 20___ 30___ 40___

Are classes held in nontraditional spaces? Yes ___ No ___

If yes, where? in Hallways____ Auditorium ____ Bathrooms ____ Other ____

Are there enough desks and chairs? Yes ___ No ____

If no, how many are missing? _____

Are the desks safe and serviceable? Yes ___ No ____

8. **Plumbing**:

Are there water fountains in your school? Yes ___ No ____

Do they work? Yes ___ No ____

Do the sinks or toilets function properly? Yes ___ No ____

If they break down, approximately how often?

Once a month ___ Once a week ___ Everyday ___ For how long? One month ___ A week ___ A few days ___ A few hours in a day ___

Is there soap? Yes ___ No ____

Is there toilet paper available? Yes ___ No ____

Is the water coming out of the faucet or water fountain ever brown or discolored?
Yes ___ No ____

Does the water have an offensive odor? Yes ___ No ____

Does the water have a funny taste? Yes ___ No ____

9. **Hygiene**:

Is the cafeteria clean? Yes ___ No ____

Are the eating utensils [forks and knives] clean? Yes ___ No ____

Is the food fresh? Yes ___ No ____

Are the floors clean? Yes ___ No ____

Are spills or food waste cleaned up adequately? Yes ___ No ____

Is there garbage or discarded waste around your school? Yes ___ No ____

Are the bathrooms clean? Yes ___ No ____

Is there a roach or rodent problem? Yes ___ No ____

If yes, how serious do you think it is? Please explain

_____

_____

_____

_____

Do the staircases in your building have handrails? Yes ___ No ____

Are the staircases safe? [free of garbage, debris, and cracks] Yes ___ No ____

Is there satisfactory lighting? Yes ___ No ____
If no, where is the lighting unsatisfactory?
in Classrooms ____ Hallways____ Auditorium ____ Bathrooms ____

10. **Outside of the school building**:

Are there school buses which stay parked outside? Yes ___ No ____

If so, are their engines ever on? Yes ___ No ____

If yes, for how often? Once a month ___ Once a week ___ A few days every week ___ Everyday ___ For how long? A few hours each day ___ One hour each day ___ 15-20 minutes each day ___

Are there bus depots nearby your school? Yes ___ No ____

Are there waste transfer stations nearby? Yes ___ No ___

Is there a nearby sewage treatment plant? Yes ___ No ___

Is there any external pollution or object near your school that affects the cleanliness or safety of the school environment? Yes___ No ____

If yes, what? _____
_____

11. **Recreational equipment**:

Is there safety equipment (rubber padding, matting, etc.) for use on the playground? Yes ___ No ____

Are there pieces of glass or other debris on the playground? Yes ___ No ____

Is the gym at your school usable (in decent condition, open for use, etc.)? Yes ___ No ____

Does the gym have adequate safety equipment for athletic activities? Yes ___ No ____

If no, what is lacking?_____
_____

Is there anything else you want to tell us about your school? _____
_____
_____

THANK YOU FOR FILLING OUT THE SURVEY!!!!!

The survey may be returned to the person who gave it out to you or sent directly to:

Jill Chaifetz,

Advocates for Children of New York, Inc.
151 West 30th Street, 5th Floor
New York, NY 10001

Appendix B:
Survey Data-Environmental Health of Schools
Analysis of 65 surveys

SURVEY DATA -- Environmental Health of Schools: Analysis of 65 surveys

Are you a student, teacher, parent, or other school employee?

Classification	Valid Percentages
Students: 43.1%, 28 people	48.3%
Teachers: 6.2%, 4 people	6.9%
Parents: 36.9%, 24 people	41.4%
Other School Employees: 3.1%, 2 people	3.4%
Missing: 10.8%, 7 people	

What is the street address/borough of your school?

Borough	Valid Percentages
Manhattan: 35.4%, 23 people	47.9
Staten Island: 3.1%, 2 people	4.2
Brooklyn: 12.3%, 8 people	16.7
Bronx: 21.5%, 14 people	29.2
Queens: 1.5%, 1 person	2.1
Missing: 26.2%, 17 people	

Do you consider your school to be a safe space or building [fire, plumbing, air]?

Safe	Valid Percentages
Yes: 75.4%, 49 people	79.0
No: 18.5%, 12 people	19.4
Both: 1.5%, 1 person	1.6
Neither: 4.6%, 3 people	

Does your school have blocked fire exits?

Blocked Fire Exits	Valid Percentages
Yes: 3.1%, 2 people	3.3
No: 89.2%, 58 people	96.7
Missing: 7.7%, 5 people	

Does your school have broken steps?

Broken Steps	Valid Percentages
Yes: 3.1%, 2 people	3.3
No: 89.2%, 58 people	96.7
Missing: 7.7%, 5 people	

Does your school have inadequate lighting?

Inadequate Lighting	Valid Percentages
Yes: 18.5%, 12 people	20
No: 73.8%, 48 people	80
Missing: 7.7%, 5 people	

Does your school have crumbling walls/ceilings?

Crumbling Walls/Ceilings	Valid Percentages
Yes: 24.6%, 16 people	26.7
No: 67.7%, 44 people	73.3
Missing: 7.7%, 5 people	

Does your school have other problems?

Other	Valid Percentages
Yes: 13.8%, 9 people	14.8
No: 80%, 52 people	83.6
Missing: 6.2%, 4 people	

Does your school have a gym?

Gym	Valid Percentages
Yes: 87.7%, 57 people	93.4
No: 6.2%, 4 people	6.6
Missing: 6.2%, 4 people	

Does your school have a playground?

Playground	Valid Percentages
Yes: 47.7%, 31 people	57.4
No: 35.4%, 23 people	42.6
Missing: 16.9%, 11 people	

Does your school have an auditorium?

Auditorium	Valid Percentages
Yes: 73.8%, 48 people	81.4
No: 16.9%, 11 people	18.6
Missing: 9.2%, 6 people	

Do you have any medical conditions?

Medical Condition	Valid Percentages
Yes: 35.4%, 23 people	40.4
No: 52.3%, 34 people	59.6
Missing: 12.3%, 8 people	

What are your medical conditions?

Medical Condition- What?	Valid Percentages
Allergies: 13.8%, 9 people	42.9
Asthma: 13.8%, 9 people	42.9
Disability: 1.5%, 1 person	4.8
Hypertension: 1.5%, 1 person	4.8
Orthopedic: 1.5%, 1 person	4.8
Missing: 67.7%, 44 people	

Is your medical condition made worse by the air quality or cleanliness of the school?

Medical Condition- Worsened?	Valid Percentages
Yes: 13.8%, 9 people	19.1
No: 58.5%, 38 people	80.9
Missing: 27.7%, 18 people	

Is your medical condition made worse by construction?

Worse from Construction	Valid Percentages
Yes: 1.5%, 1 person	2.1
No: 70.8%, 46 people	97.9
Missing: 27.7%, 18 people	

Is your medical condition made worse by the indoor air quality?

Worse from Indoor Air Quality	Valid Percentages
Yes: 12.3%, 8 people	17
No: 60%, 39 people	83
Missing: 27.7%, 18 people	

Is your medical condition made worse by pesticide use?

Worse from Pesticide Use	Valid Percentages
Yes: 1.5%, 1 person	2.1
No: 70.8%, 46 people	97.9
Missing: 27.7%, 18 people	

Is your medical condition made worse by cleaning fluids?

Worse from Cleaning Fluids	Valid Percentages
Yes: 3.1%, 2 people	4.3
No: 69.2%, 45 people	95.7
Missing: 27.7%, 18 people	

Is your medical condition made worse by dirt/garbage?

Worse from Dirt/Garbage	Valid Percentages
Yes: 4.6%, 3 people	6.4
No: 67.7%, 44 people	93.6
Missing: 27.7%, 18 people	

Is your medical condition made worse by some other factor?

Worse from Other	Valid Percentages
Yes: 4.6%, 3 people	6.3
No: 69.2%, 45 people	91.7
Missing: 26.2%, 17 people	

Do you have any sensitivities to the air or particular fumes in the school building?

Sensitivities to Air/Fumes	Valid Percentages
Yes: 12.3%, 8 people	14.3
No: 73.8%, 48 people	85.7
Missing: 13.8%, 9 people	

Do you have more frequent or serious asthma or allergy attacks during the school days?

More Frequent Attacks?	Valid Percentages
Yes: 9.2%, 6 people	12
No: 67.7%, 44 people	88
Missing: 23.1%, 15 people	

Have you noticed any cracks or holes in the walls and ceilings of any classroom?

Cracks in Classrooms	Valid Percentages
Yes: 29.2%, 19 people	32.2
No: 61.5%, 40 peopleq	67.8
Missing: 9.2%, 6 people	

Have you noticed any cracks or holes in the walls and ceilings of any hallway?

Cracks in Hallways	Valid Percentages
Yes: 24.6%, 16 people	27.1
No: 66.2%, 43 people	72.9
Missing: 9.2%, 6 people	

Have you noticed any cracks or holes in the walls and ceilings of the auditorium?

Cracks in Auditorium	Valid Percentages
Yes: 15.4%, 10 people	16.9
No: 75.4%, 49 people	83.1
Missing: 9.2%, 6 people	

Have you noticed any cracks or holes in the walls and ceilings of any bathroom?

Cracks in Bathrooms	Valid Percentages
Yes: 29.2%, 19 people	32.2
No: 61.5%, 40 people	67.8
Missing: 9.2%, 6 people	

Have you noticed any cracks or holes in the walls and ceilings of the gym?

Cracks in Gym	Valid Percentages
Yes: 12.3%, 8 people	13.6
No: 78.5%, 51 people	86.4
Missing: 9.2%, 6 people	

Is the paint peeling in any classrooms in your school?

Peeling Paint in Classrooms	Valid Percentages
Yes: 18.5%, 12 people	24
No: 58.5%, 38 people	76
Missing: 23.1%, 15 people	

Is the paint peeling in any hallways in your school?

Peeling Paint in Hallways	Valid Percentages
Yes: 13.8%, 9 people	18
No: 63.1%, 41 people	82
Missing: 23.1%, 15 people	

Is the paint peeling in the auditorium of your school?

Peeling Paint in Auditorium	Valid Percentages
Yes: 7.7%, 5 people	10
No: 69.2%, 45 people	90
Missing: 23.1%, 15 people	

Is the paint peeling in any bathrooms in your school?

Peeling Paint in Bathrooms	Valid Percentages
Yes: 15.4%, 10 people	20
No: 61.5%, 40 people	80
Missing: 23.1%, 15 people	

Is the paint peeling in the gym of your school?

Peeling Paint in Gym	Valid Percentages
Yes: 9.2%, 6 people	12
No: 67.7%, 44 people	88
Missing: 23.1%, 15 people	

Is there any exposed wiring in classrooms at your school?

Exposed Wiring in Classrooms	Valid Percentages
Yes: 4.6%, 3 people	5.4
No: 81.5%, 53 people	94.6
Missing: 13.8%, 9 people	

Is there any exposed wiring in any hallways at your school?

Exposed Wiring in Hallways	Valid Percentages
Yes: 1.5%, 1 person	1.8
No: 84.6%, 55 people	98.2
Missing: 13.8%, 9 people	

Is there any exposed wiring in the auditorium at your school?

Exposed Wiring in Auditorium	Valid Percentages
Yes: 0%, 0 people	0
No: 86.2%, 56 people	100
Missing: 13.8%, 9 people	

Is there any exposed wiring in the bathrooms at your school?

Exposed Wiring in Bathrooms	Valid Percentages
Yes: 0%, 0 people	0
No: 86.2%, 56 people	100
Missing: 13.8%, 9 people	

Is there any exposed wiring in the gym at your school?

Exposed Wiring in Gym	Valid Percentages
Yes: 0%, 0 people	0
No: 86.2%, 56 people	100
Missing: 13.8%, 9 people	

Are there cracks in the ceilings of any classrooms at your school?

Cracked Ceiling in Classrooms	Valid Percentages
Yes: 23.1%, 15 people	27.3
No: 61.5%, 40 people	72.7
Missing: 15.4%, 10 people	

Are there cracks in the ceilings of any hallways at your school?

Cracked Ceiling in Hallways	Valid Percentages
Yes: 21.5%, 14 people	25.9
No: 61.5%, 40 people	74.1
Missing: 16.9%, 11 people	

Are there cracks in the ceilings of the auditorium at your school?

Cracked Ceiling in Auditorium	Valid Percentages
Yes: 12.3%, 8 people	14.8
No: 70.8%, 46 people	85.2
Missing: 16.9%, 11 people	

Are there cracks in the ceiling of any bathrooms at your school?

Cracked Ceiling in Bathrooms	Valid Percentages
Yes: 16.9%, 11 people	20.4
No: 66.2%, 43 people	79.6
Missing: 16.9%, 11 people	

Are there cracks in the ceiling of the gym at your school?

Cracked Ceiling in Gym	Valid Percentages
Yes: 6.2%, 4 people	7.4
No: 76.9%, 50 people	92.6
Missing: 16.9%, 11 people	

Does the ceiling leak in any classrooms at your school?

Leaky Ceiling in Classrooms	Valid Percentages
Yes: 4.6%, 3 people	5.6
No: 78.5%, 51 people	94.4
Missing: 16.9%, 11 people	

Does the ceiling leak in any hallways at your school?

Leaky Ceiling in Hallways	Valid Percentages
Yes: 0%, 0 people	0
No: 81.5%, 53 people	100
Missing: 16.9%, 11 people	

Does the ceiling leak in the auditorium at your school?

Leaky Ceiling in Auditorium	Valid Percentages
Yes: 0%, 0 people	0
No: 83.1%, 54 people	100
Missing: 16.9%, 11 people	

Does the ceiling leak in any bathrooms at your school?

Leaky Ceiling in Bathrooms	Valid Percentages
Yes: 1.5%, 1 person	1.9
No: 81.5%, 53 people	96.3
Missing: 16.9%, 11 people	

Does the ceiling leak in the gym at your school?

Leaky Ceiling in Gym	Valid Percentages
Yes: 0%, 0 people	0
No: 83.1%, 54 people	100
Missing: 16.9%, 11 people	

Are any windows painted or nailed shut?

Windows Painted/Nailed Shut	Valid Percentages
Yes: 12.3%, 8 people	13.6
No: 78.5%, 51 people	86.4
Missing: 9.2%, 6 people	

Approximately how many windows are painted or nailed shut at your school?

# Windows Painted/Nailed Shut	Valid Percentages
0: 76.9%, 50 people	92.6
1: 1.5%, 1 person	1.9
2: 1.5%, 1 person	1.9
3: 1.5%, 1 person	1.9
20: 1.5%, 1 person	1.9
Missing: 16.9%, 11 people	

Are any windows painted or nailed shut in the classrooms at your school?

Windows Painted/Nailed Shut in Classrooms	Valid Percentages
Yes: 10.8%, 7 people	12.1
No: 78.5%, 51 people	87.9
Missing: 10.8%, 7 people	

Are any windows painted or nailed shut in the hallways at your school?

Windows Painted/Nailed in Hallways	Valid Percentages
Yes: 4.6%, 3 people	5.2
No: 84.6%, 55 people	94.8
Missing: 10.8%, 7 people	

Are any windows painted or nailed shut in the auditorium at your school?

Windows Painted/Nailed Shut in Auditorium	Valid Percentages
Yes: 1.5%, 1 person	1.7
No: 87.7%, 57 people	98.3
Missing: 10.8%, 7 people	

Are any windows painted or nailed shut in the bathrooms at your school?

Windows Painted/Nailed Shut in Bathrooms	Valid Percentages
Yes: 6.2%, 4 people	6.9
No: 83.1%, 54 people	93.1
Missing: 10.8%, 7 people	

Are any windows painted or nailed shut in the gym at your school?

Windows Painted/Nailed Shut in Gym	Valid Percentages
Yes: 1.5%, 1 person	1.7
No: 87.7%, 57 people	98.3
Missing: 10.8%, 7 people	

Are any windows broken at your school?

Broken Windows	Valid Percentages
Yes: 12.3%, 8 people	16
No: 64.6%, 42 people	84
Missing: 23.1%, 15 people	

Approximately how many windows are broken at your school?

# Windows Broken	Valid Percentages
0: 64.6%, 42 people	89.4
1: 1.5%, 1 person	2.1
4: 1.5%, 1 person	2.1
5: 1.5%, 1 person	2.1
12: 1.5%, 1 person	2.1
75: 1.5%, 1 person	2.1
Missing: 27.7%, 18 people	

Are there any windows broken in the classrooms at your school?

Windows Broken in Classrooms	Valid Percentages
Yes: 9.2%, 6 people	12.2
No: 66.2%, 43 people	87.8
Missing: 24.6%, 16 people	

Are any windows broken in the hallways at your school?

Windows Broken in Hallways	Valid Percentages
Yes: 6.2%, 4 people	8.2
No: 69.2%, 45 people	91.8
Missing: 24.6%, 16 people	

Are any windows broken in the auditorium at your school?

Windows Broken in Auditorium	Valid Percentages
Yes: 0%, 0 people	0
No: 75.4%, 49 people	100
Missing: 24.6%, 16 people	

Are any windows broken in the bathrooms at your school?

Windows Broken in Bathrooms	Valid Percentages
Yes: 3.1%, 2 people	4.1
No: 72.3%, 47 people	95.9
Missing: 24.6%, 16 people	

Are any windows broken in the gym at your school?

Windows Broken in Gym	Valid Percentages
Yes: 0%, 0 people	0
No: 75.4%, 49 people	100
Missing: 24.6%, 16 people	

Is the ventilation/air circulation in your school poor?

Poor Ventilation	Valid Percentages
Yes: 24.6%, 16 people	30.8
No: 53.8%, 35 people	67.3
Both: 1.5%, 1 person	1.9
Missing: 20%, 13 people	

Do the windows open?

Windows Open	Valid Percentages
Yes: 83.1%, 54 people	93.1
No: 3.1%, 2 people	3.4
Both: 3.1%, 2 people	3.4
Missing: 10.8%, 7 people	

Does your school have air conditioning?

Air Conditioning	Valid Percentages
Yes: 30.8%, 20 people	33.9
No: 60%, 39 people	66.1
Missing: 9.2%, 6 people	

Does the air conditioning work in your school?

Working Air Conditioning	Valid Percentages
Yes: 26.2%, 17 people	77.3
No: 7.7%, 5 people	22.7
Missing: 66.2%, 43 people	

If there is air conditioning in your school, is it adequate?

Adequate Air Conditioning	Valid Percentages
Yes: 18.5%, 12 people	63.2
No: 10.8%, 7 people	36.8
Missing: 70.8%, 46 people	

Does the heat work in your school?

Working Heat	Valid Percentages
Yes: 76.9%, 50 people	87.7
No: 6.2%, 4 people	7
Sometimes: 4.6%, 3 people	5.3
Missing: 12.3%, 8 people	

If the heat does work, is it adequate?

Adequate Heat	Valid Percentages
Yes: 50.8%, 33 people	75
No: 16.9%, 11 people	25
Missing: 32.3%, 21 people	

Is there an offensive or musty odor in the building?

Offensive/Musty Odor	Valid Percentages
Yes: 24.6%, 16 people	28.1
No: 63.1%, 41 people	71.9
Missing: 12.3%, 8 people	

If there is an offensive or musty odor in the building, do you know where it is coming from?

Known Source of Odor	Valid Percentages
Yes: 10.8%, 7 people	38.9
No: 16.9%, 11 people	61.1
Missing: 72.3%, 47 people	

Are there fans or vents?

Fans/Vents	Valid Percentages
Yes: 52.3%, 34 people	66.7
No: 26.2%, 17 people	33.3
Missing: 21.5%, 14 people	

Do the fans or vents work?

Working Fans/Vents	Valid Percentages
Yes: 40%, 26 people	81.3
No: 7.7%, 5 people	15.6
Sometimes: 1.5%, 1 person	3.1
Missing: 50.8%, 33 people	

Do the cleaning fluids used in the school have a really strong (toxic) smell?

Toxic Smell from Cleaning Fluids	Valid Percentages
Yes: 16.9%, 11 people	22
No: 58.5%, 38 people	76
Sometimes: 1.5%, 1 person	2
Missing: 23.1%, 15 people	

If they do have a strong (toxic) smell, are the fumes too strong?

Fumes too Strong	Valid Percentages
Yes: 10.8%, 7 people	29.2
No: 26.2%, 17 people	70.8
Missing: 63.1%, 41 people	

Do the fumes from the cleaning fluids cause any medical problems for you or anyone you know?

Do Fumes Cause Medical Problems	Valid Percentages
Yes: 4.6%, 3 people	7
No: 61.5%, 40 people	93
Missing: 33.8%, 22 people	

If the fumes do cause medical problems for you or someone you know, what are they?

What Problems Caused by Fumes	Valid Percentages
Vomit: 1.5%, 1 person	33.3
Allergies: 1.5%, 1 person	33.3
Headaches: 1.5%, 1 person	33.3
Missing: 95.4%, 62 people	

Are there easily accessible fire extinguishers and/or fire alarms in the classrooms?

Extinguishers/Alarms in Classrooms	Valid Percentages
Yes: 23.1%, 15 people	32.6
No: 47.7%, 31 people	67.4
Missing: 29.2%, 19 people	

Are there easily accessible fire extinguishers and/or fire alarms in the hallways?

Extinguishers/Alarms in Hallways	Valid Percentages
Yes: 60%, 39 people	84.8
No: 10.8%, 7 people	15.2
Missing: 29.2%, 19 people	

Are there easily accessible fire extinguishers and/or fire alarms in the auditorium?

Extinguishers/Alarms in Auditorium	Valid Percentages
Yes: 30.8%, 20 people	43.5
No: 40%, 26 people	56.5
Missing: 29.2%, 19 people	

Are there easily accessible fire extinguishers and/or fire alarms in the bathrooms?

Extinguishers/Alarms in Bathrooms	Valid Percentages
Yes: 7.7%, 5 people	10.9
No: 63.1%, 41 people	89.1
Missing: 29.2%, 19 people	

How many fire exits are there?

# Fire Exits	Valid Percentages
1: 3.1%, 2 people	8
2: 4.6%, 3 people	12
3: 6.2%, 4 people	16
4: 6.2%, 4 people	16
5: 6.2%, 4 people	16

6: 4.6%, 3 people	12
8: 3.1%, 2 people	8
10: 1.5%, 1 person	4
16: 1.5%, 1 person	4
21: 1.5%, 1 person	4
Missing: 61.5%, 40 people	

Are the fire exits easily accessible?

Fire Exits Accessible	Valid Percentages
Yes: 49.2%, 32 people	86.5
No: 7.7%, 5 people	13.5
Missing: 43.1%, 28 people	

Is there a safety strategy for exiting the building quickly and safely?

Exit Strategy	Valid Percentages
Yes: 56.9%, 37 people	86
No: 9.2%, 6 people	14
Missing: 33.8%, 22 people	

Are there illuminated fire exit signs?

Illuminated Signs	Valid Percentages
Yes: 49.2%, 32 people	72.7
No: 18.5%, 12 people	27.3
Missing: 32.3%, 21 people	

Do the illuminated fire exit signs work?

Working Illuminated Signs	Valid Percentages
Yes: 43.1%, 28 people	87.5
No: 6.2%, 4 people	12.5
Missing: 50.8%, 33 people	

Are any of your classrooms overcrowded?

Overcrowded Classrooms	Valid Percentages
Yes: 30.8%, 20 people	37.7
No: 50.8%, 33 people	62.3
Missing: 18.5%, 12 people	

If the classrooms are overcrowded, how many students are in the class?

# Students in Classrooms	Valid Percentages
20: 3.1%, 2 people	7.1
30: 30.8%, 20 people	71.4
40: 9.2%, 6 people	21.4
Missing: 56.9%, 37 people	

Are classes held in nontraditional spaces such as hallways?

Classes Held in Hallways	Valid Percentages
Yes: 10.8%, 7 people	14
No: 66.2%, 43 people	86
Missing: 23.1%, 15 people	

Are classes held in nontraditional spaces such as the auditorium?

Classes Held in Auditorium	Valid Percentages
Yes: 4.6%, 3 people	6
No: 72.3%, 47 people	94
Missing: 23.1%, 15 people	

Are classes held in nontraditional spaces such as bathrooms?

Classes Held in Bathrooms	Valid Percentages
Yes: 0%, 0 people	0
No: 76.9%, 50 people	100
Missing: 23.1%, 15 people	

Are classes held in other nontraditional spaces?

Classes Held in Other Spaces	Valid Percentages
Yes: 6.2%, 4 people	8
No: 70.8%, 46 people	92
Missing: 23.1%, 15 people	

Are there enough desks and chairs?

Enough Desks/Chairs	Valid Percentages
Yes: 72.3%, 47 people	79.7
No: 15.4%, 10 people	16.9
Missing: 9.2%, 6 people	

If there are not enough desks and chairs, how many are missing?

# Missing Desks/Chairs	Valid Percentages
0: 58.5%, 38 people	90.5
1: 1.5%, 1 person	2.4
2: 1.5%, 1 person	2.4
8: 1.5%, 1 person	2.4
13: 1.5%, 1 person	2.4
Missing: 35.4%, 23 people	

Are the desks safe and serviceable?

Desks Safe/Serviceable	Valid Percentages
Yes: 76.9%, 50 people	94.3
No: 4.6%, 3 people	5.7
Missing: 18.5%, 12 people	

Are there water fountains in your school?

Water Fountains	Valid Percentages
Yes: 89.2%, 58 people	96.7
No: 3.1%, 2 people	3.3
Missing: 7.7%, 5 people	

Do the water fountains in your school work?

Working Water Fountains	Valid Percentages
Yes: 61.5%, 40 people	71.4
No: 12.3%, 8 people	14.3
Sometimes: 12.3%, 8 people	14.3
Missing: 13.8%, 9 people	

Do the sinks or toilets function properly?

Functioning Sinks/Toilets	Valid Percentages
Yes: 72.3%, 47 people	83.9
No: 12.3%, 8 people	14.3
Missing: 1.5%, 1 person	

If the sinks and toilets break down, approximately how often?

How Often Sinks/Toilets Break Down	Valid Percentages
Once a month: 13.8%, 9 people	47.4
Once a week: 4.6%, 3 people	15.8
Every day: 10.8%, 7 people	36.8
Missing: 70.8%, 46 people	

For how long do the sinks and toilets break down?

For How Long Sinks/Toilets Break Down	Valid Percentages
One month: 4.6%, 3 people	21.4
A week: 4.6%, 3 people	21.4
A few days: 9.2%, 6 people	42.9
A few hours: 3.1%, 2 people	14.3
Missing: 78.5%, 51 people	

Is there soap?

Soap	Valid Percentages
Yes: 61.5%, 40 people	71.4
No: 24.6%, 16 people	28.6
Missing: 13.8%, 9 people	

Is there toilet paper available?

Toilet Paper	Valid Percentages
Yes: 70.8%, 46 people	76.7
No: 16.9%, 11 people	18.3
Sometimes: 4.6%, 3 people	5
Missing: 7.7%, 5 people	

Is the water coming out of the faucet or water fountain ever brown or discolored?

Discolored Water	Valid Percentages
Yes: 16.9%, 11 people	19.3
No: 70.8%, 46 people	80.7
Missing: 12.3%, 8 people	

Does the water have an offensive odor?

Water Odor	Valid Percentages
Yes: 6.2%, 4 people	6.7
No: 86.2%, 56 people	93.3
Missing: 7.7%, 5 people	

Does the water have a funny taste?

Funny Tasting Water	Valid Percentages
Yes: 33.8%, 22 people	37.9
No: 55.4%, 36 people	62.1
Missing: 10.8%, 7 people	

Is the cafeteria clean?

Clean Cafeteria	Valid Percentages
Yes: 67.7%, 44 people	74.6
No: 21.5%, 14 people	23.7
Sometimes: 1.5%, 1 person	1.7
Missing: 10.8%, 7 people	

Are the eating utensils [forks and knives] clean?

Clean Eating Utensils	Valid Percentages
Yes: 83.1%, 54 people	98.2
No: 1.5%, 1 person	1.8
Missing: 15.4%, 10 people	

Is the food fresh?

Fresh Food	Valid Percentages
Yes: 70.8%, 46 people	86.8
No: 9.2%, 6 people	11.3
Sometimes: 1.5%, 1 person	1.9
Missing: 18.5%, 12 people	

Are the floors clean?

Clean Floors	Valid Percentages
Yes: 64.6%, 42 people	72.4
No: 23.1%, 15 people	25.9
Sometimes: 1.5%, 1 person	1.7
Missing: 10.8%, 7 people	

Are spills or food waste cleaned up adequately?

Spills/Food Waste Cleaned Adequately	Valid Percentages
Yes: 63.1%, 41 people	71.9
No: 18.5%, 12 people	21.1
Sometimes: 6.2%, 4 people	7
Missing: 12.3%, 8 people	

Is there garbage or discarded waste around your school?

Garbage/Discarded Waste	Valid Percentages
Yes: 38.5%, 25 people	47.2
No: 43.1%, 28 people	52.8
Missing: 18.5%, 12 people	

Are the bathrooms clean?

Clean Bathrooms	Valid Percentages
Yes: 52.3%, 34 people	59.6
No: 32.3%, 21 people	36.8
Sometimes: 3.1%, 2 people	3.5
Missing: 12.3%, 8 people	

Is there a roach or rodent problem?

Roach/Rodent Problem	Valid Percentages
Yes: 23.1%, 15 people	27.8
No: 60%, 39 people	72.2
Missing: 16.9%, 11 people	

Do the staircases in your building have handrails?

Handrails on Staircases	Valid Percentages
Yes: 89.2%, 58 people	100
No: 0%, 0 people	0
Missing: 10.8%, 7 people	

Are the staircases safe [free of garbage, debris, and cracks]?

Safe Staircases	Valid Percentages
Yes: 76.9%, 50 people	90.9
No: 7.7%, 5 people	9.1
Missing: 15.4%, 10 people	

Is there satisfactory lighting?

Satisfactory Lighting	Valid Percentages
Yes: 61.5%, 40 people	71.4
No: 24.6%, 16 people	28.6
Missing: 13.8%, 9 people	

Is the lighting unsatisfactory in the classrooms?

Bad Lighting in Classrooms	Valid Percentages
Yes: 4.6%, 3 people	5.8
No: 75.4%, 49 people	94.2
Missing: 20%, 13 people	

Is the lighting unsatisfactory in the hallways?

Bad Lighting in Hallways	Valid Percentages
Yes: 15.4%, 10 people	19.2
No: 64.6%, 42 people	80.8
Missing: 20%, 13 people	

Is the lighting unsatisfactory in the auditorium?

Bad Lighting in Auditorium	Valid Percentages
Yes: 6.2%, 4 people	7.7
No: 73.8% 48 people	92.3
Missing: 20%, 13 people	

Is the lighting unsatisfactory in the bathrooms?

Bad Lighting :n Bathrooms	Valid Percentages
Yes: 6.2%, 4 people	7.7
No: 73.8%, 48 people	92.3
Missing: 20%, 13 people	

Are there school buses which stay parked outside?

Buses Parked Outside	Valid Percentages
Yes: 12.3%, 8 people	16
No: 64.6%, 42 people	84
Missing: 23.1%, 15 people	

If there are school buses which stay parked outside, are their engines ever on?

Engines On	Valid Percentages
Yes: 6.2%, 4 people	57.1
No: 4.6%, 3 people	42.9
Missing: 89.2%, 58 people	

If their engines are ever on, how often are they on?

How Often Engines Are On	Valid Percentages
Once a month: 0%, 0 people	0
Once a week: 0%, 0 people	0
A few days every week: 0%, 0 people	0
Every day: 1.5%, 1 person	100
Missing: 98.5%, 64 people	

If their engines are ever on, for how long are they on?

For How Long are Engines Left On	Valid Percentages
A few hours: 1.5%, 1 person	16.7
One hour: 3.1%, 2 people	33.3
15-20 Minutes: 4.6%, 3 people	50
Missing: 90.8%, 59 people	

Are there any bus depots nearby your school?

Bus Depots Near School	Valid Percentages
Yes: 33.8%, 22 people	43.1
No: 44.6%, 29 people	56.9
Missing: 21.5%, 14 people	

Are there any waste transfer stations nearby your school?

Waste Transfer Stations Near School	Valid Percentages
Yes: 7.7%, 5 people	11.4
No: 60%, 39 people	88.6
Missing: 32.3%, 21 people	

Is there a nearby sewage treatment plant?

Nearby Sewage Treatment Plant	Valid Percentages
Yes: 1.5%, 1 person	1.9
No: 78.5%, 51 people	98.1
Missing: 20%, 13 people	

Is there any external pollution or object near your school that affects the cleanliness or safety of the school environment?

External Pollution	Valid Percentages
Yes: 1.5%, 1 person	1.9
No: 78.5%, 51 people	98.1
Missing: 20%, 13 people	

Is there safety equipment [rubber padding, matting, etc.] for use on the playground?

Safety Equipment on Playground	Valid Percentages
Yes: 41.5%, 27 people	61.4
No: 26.2%, 17 people	38.6
Missing: 32.3%, 21 people	

Are there pieces of glass or other debris on the playground?

Glass/Debris on Playground	Valid Percentages
Yes: 15.4%, 10 people	21.7
No: 55.4%, 36 people	78.3
Missing: 29.2%, 19 people	

Is the gym at your school usable (in decent condition, open for use, etc.)?

Usable Gym	Valid Percentages
Yes: 70.8%, 46 people	90.2
No: 7.7%, 5 people	9.8
Missing: 21.5%, 14 people	

Does the gym have adequate safety equipment for athletic activities?

Safety Equipment in Gym	Valid Percentages
Yes: 61.5%, 40 people	85.1
No: 10.8%, 7 people	14.9
Missing: 27.7%, 18 people	

Appendix C:
Survey Data-School Facility Snapshot
Analysis of 39 schools

SURVEY DATA -- School Facility Snapshot: Analysis of 39 schools

N= 65 Data	Students N= 14	Teachers N= 4	Parents N= 21	Total N= 39	% Total
Are you a student, teacher, parent, or other school employee?				39	100 %
Classification					
Students: 43.1%, 28 people	14				
Teachers: 6.2%, 4 people		2			
Parents: 36.9%, 24 people			21		
Other School Employees: 3.1%, 2 people					
Missing: 10.8%, 7 people		2			
Do you consider your school to be a safe space or building [fire, plumbing, air]?					
Safe					
Yes: 75.4%, 49 people	7	4	17	28	
No: 18.5%, 12 people	7	0	3	10	26 %
Both: 1.5%, 1 person	0	0	1	1	
Neither: 4.6%, 3 people	0	0	0	0	
Does your school have blocked fire exits?					
Blocked Fire Exits					
Yes: 3.1%, 2 people	0	0	0	0	
No: 89.2%, 58 people	14	4	21	39	100 %
Missing: 7.7%, 5 people					
Does your school have broken steps?					
Broken Steps					
Yes: 3.1%, 2 people	1	0	1	2	5 %
No: 89.2%, 58 people	13	4	20	37	
Missing: 7.7%, 5 people				0	
Does your school have inadequate lighting?					
Inadequate Lighting					
Yes: 18.5%, 12 people	6	1	0	7	18 %
No: 73.8%, 48 people	8	3	21	32	
Missing: 7.7%, 5 people					
Does your school have crumbling walls/ceilings?					
Crumbling Walls/Ceilings					
Yes: 24.6%, 16 people	6	2	2	10	26 %
No: 67.7%, 44 people	8	2	19	29	
Missing: 7.7%, 5 people	0	0	0	0	

N= 65 Data	Students N= 14	Teachers N= 4	Parents N= 21	Total N= 39	% Total
Does your school have a gym?					
Gym					
Yes: 87.7%, 57 people	14	3	17	34	
No: 6.2%, 4 people	0	0	3	3	8 %
Missing: 6.2%, 4 people	0	1	1	2	
Does your school have a playground?					
Playground					
Yes: 47.7%, 31 people	7	2	15	24	
No: 35.4%, 23 people	7	1	5	13	35 %
Missing: 16.9%, 11 people	0	1	1	2	
Does your school have an auditorium?					
Auditorium					
Yes: 73.8%, 48 people	12	3	17	32	
No: 16.9%, 11 people	1	1	3	5	13 %
Missing: 9.2%, 6 people	1	0	1	2	
Do you have any medical conditions?					
Medical Condition					
Yes: 35.4%, 23 people	6	1	9	16	41 %
No: 52.3%, 34 people	8	2	12	22	
Missing: 12.3%, 8 people	0	1	0	1	
What are your medical conditions?					
Medical Condition- What?					
Allergies: 13.8%, 9 people	0	1	4	5	33 %
Asthma: 13.8%, 9 people	4	1	3	8	
Disability: 1.5%, 1 person			0	0	
Hypertension: 1.5%, 1 person	1		0	1	
Orthopedic: 1.5%, 1 person			1	1	
Missing: 67.7%, 44 people	(9)	(3)	(14)	(26)	
Is your medical condition made worse by the air quality or cleanliness of the school?					
Medical Condition- Worsened?					
Yes: 13.8%, 9 people	3	0	3	6	15%
No: 58.5%, 38 people	0	2	6	8	
Missing: 27.7%, 18 people	11	2	12	25	

6/16 = 38%

N= 65 Data	Students N= 14	Teachers N= 4	Parents N= 21	Total N= 39	% Total
Is your medical condition made worse by construction?					
Worse from Construction					
Yes: 1.5%, 1 person	0	0	1	1	
No: 70.8%, 46 people	3	1	9	13	
Missing: 27.7%, 18 people					
					1/16 = 6%
Is your medical condition made worse by the indoor air quality?					
Worse from Indoor Air Quality					
Yes: 12.3%, 8 people	2	0	3	5	
No: 60%, 39 people	1	1	7	9	
Missing: 27.7%, 18 people					
					5/16 = 31%
Is your medical condition made worse by pesticide use?					
Worse from Pesticide Use					
Yes: 1.5%, 1 person	0	0	1	1	
No: 70.8%, 46 people	3	1	9	13	
Missing: 27.7%, 18 people					
					1/16 = 6%
Is your medical condition made worse by cleaning fluids?					
Worse from Cleaning Fluids					
Yes: 3.1%, 2 people	1	0	1	2	
No: 69.2%, 45 people	2	1	9	12	
Missing: 27.7%, 18 people					
					2/16 = 13%
Is your medical condition made worse by dirt/garbage?					
Worse from Dirt/Garbage					
Yes: 4.6%, 3 people	1	0	1	2	
No: 67.7%, 44 people	2	1	8	11	
Missing: 27.7%, 18 people					
					2/16 = 13%
Do you have any sensitivities to the air or particular fumes in the school building?					
Sensitivities to Air/Fumes					
Yes: 12.3%, 8 people	1	1	3	5	
No: 73.8%, 48 people	9	2	17	28	
Missing: 13.8%, 9 people	4	1	1	6	
					5/33 = 15%

N= 65 Data	Students N= 14	Teachers N= 4	Parents N= 21	Total N= 39	% Total
Do you have more frequent or serious asthma or allergy attacks during the school days?					
More Frequent Attacks?					
Yes: 9.2%, 6 people 6/50=12%	1	0	2	3	
No: 67.7%, 44 people	8	3	16	27	
Missing: 23.1%, 15 people	5	1	3	9	
					3/30 = 10%
Have you noticed any cracks or holes in the walls and ceilings of any classroom?					
Cracks in Classrooms					
Yes: 29.2%, 19 people 19/59=32%	5	1	2	8	
No: 61.5%, 40 peopleq	8	2	15	25	
Missing: 9.2%, 6 people	1	1	4	6	
					8/33 = 24%
Have you noticed any cracks or holes in the walls and ceilings of any hallway?					
Cracks in Hallways					
Yes: 24.6%, 16 people	4	1	1	6	6/39 = 15%
No: 66.2%, 43 people	9	2	17	26	
Missing: 9.2%, 6 people	1	1	3	5	
					6/34
Have you noticed any cracks or holes in the walls and ceilings of the auditorium?					
Cracks in Auditorium					
Yes: 15.4%, 10 people	3	0	1	4	
No: 75.4%, 49 people	10	3	17	30	
Missing: 9.2%, 6 people	1	1	3	5	
Have you noticed any cracks or holes in the walls and ceilings of any bathroom?					
Cracks in Bathrooms					
Yes: 29.2%, 19 people	6	1	1	8	8/59=21%
No: 61.5%, 40 people	7	2	17	26	
Missing: 9.2%, 6 people	1	1	3	5	
Have you noticed any cracks or holes in the walls and ceilings of the gym?					
Cracks in Gym					
Yes: 12.3%, 8 people	3	0	1	4	
No: 78.5%, 51 people	10	3	17	30	
Missing: 9.2%, 6 people	1	1	3	5	
Is the paint peeling in any classrooms in your school?					
Peeling Paint in Classrooms					
Yes: 18.5%, 12 people	4	1	3	8	8/39=21%
No: 58.5%, 38 people	7	2	13	22	
Missing: 23.1%, 15 people	3	1	5	9	

N= 65 Data	Students N= 14	Teachers N= 4	Parents N= 21	Total N= 39	% Total
Is the paint peeling in any hallways in your school?					
Peeling Paint in Hallways					
Yes: 13.8%, 9 people	3	1	1	5	13%
No: 63.1%, 41 people	8	3	15	26	
Missing: 23.1%, 15 people	3	0	5	8	
Is the paint peeling in the auditorium of your school?					
Peeling Paint in Auditorium					
Yes: 7.7%, 5 people	1	0	2	3	
No: 69.2%, 45 people	10	4	14	28	
Missing: 23.1%, 15 people	3	0	5	8	
Is the paint peeling in any bathrooms in your school?					
Peeling Paint in Bathrooms					
Yes: 15.4%, 10 people	5	0	1	6	
No: 61.5%, 40 people	6	4	16	26	
Missing: 23.1%, 15 people	3	0	4	7	
Is the paint peeling in the gym of your school?					
Peeling Paint in Gym					
Yes: 9.2%, 6 people	3	0	1	4	
No: 67.7%, 44 people	8	4	14	26	
Missing: 23.1%, 15 people	3	0	5	9	
Is there any exposed wiring in classrooms at your school?					
Exposed Wiring in Classrooms					
Yes: 4.6%, 3 people	2	0	0	2	
No: 81.5%, 53 people	10	4	17	31	
Missing: 13.8%, 9 people	2	0	4	6	
Is there any exposed wiring in any hallways at your school?					
Exposed Wiring in Hallways					
Yes: 1.5%, 1 person				0	
No: 84.6%, 55 people				33	
Missing: 13.8%, 9 people				6	
Is there any exposed wiring in the auditorium at your school?					
Exposed Wiring in Auditorium					
Yes: 0%, 0 people				0	
No: 86.2%, 56 people				33	
Missing: 13.8%, 9 people				6	

N= 65 Data	Students N= 14	Teachers N= 4	Parents N= 21	Total N= 39	% Total
Is there any exposed wiring in the bathrooms at your school?					
Exposed Wiring in Bathrooms					
Yes: 0%, 0 people				0	
No: 86.2%, 56 people				33	
Missing: 13.8%, 9 people				6	
Is there any exposed wiring in the gym at your school?					
Exposed Wiring in Gym					
Yes: 0%, 0 people				0	
No: 86.2%, 56 people				33	
Missing: 13.8%, 9 people				6	
Are there cracks in the ceilings of any classrooms at your school?					
Cracked Ceiling in Classrooms					
Yes: 23.1%, 15 people				7	18%
No: 61.5%, 40 people				25	
Missing: 15.4%, 10 people				7	
Are there cracks in the ceilings of any hallways at your school?					
Cracked Ceiling in Hallways					
Yes: 21.5%, 14 people				6	15%
No: 61.5%, 40 people				27	
Missing: 16.9%, 11 people				6	
Are there cracks in the ceilings of the auditorium at your school?					
Cracked Ceiling in Auditorium					
Yes: 12.3%, 8 people				0	13%
No: 70.8%, 46 people				28	
Missing: 16.9%, 11 people				6	
Are there cracks in the ceiling of any bathrooms at your school?					
Cracked Ceiling in Bathrooms					
Yes: 16.9%, 11 people				7	18%
No: 66.2%, 43 people				26	
Missing: 16.9%, 11 people				6	
Are there cracks in the ceiling of the gym at your school?					
Cracked Ceiling in Gym					
Yes: 6.2%, 4 people				2	
No: 76.9%, 50 people				31	
Missing: 16.9%, 11 people				6	

N= 65 Data	Students N= 14	Teachers N= 4	Parents N= 21	Total N= 39	% Total
Does the ceiling leak in any classrooms at your school?					
Leaky Ceiling in Classrooms					
Yes: 4.6%, 3 people				1	
No: 78.5%, 51 people				32	
Missing: 16.9%, 11 people				6	
Does the ceiling leak in any hallways at your school?					
Leaky Ceiling in Hallways					
Yes: 0%, 0 people				0	
No: 81.5%, 53 people				32	
Missing: 16.9%, 11 people				7	
Does the ceiling leak in the auditorium at your school?					
Leaky Ceiling in Auditorium					
Yes: 0%, 0 people				0	
No: 83.1%, 54 people				32	
Missing: 16.9%, 11 people				7	
Does the ceiling leak in any bathrooms at your school?					
Leaky Ceiling in Bathrooms					
Yes: 1.5%, 1 person				0	
No: 81.5%, 53 people				32	
Missing: 16.9%, 11 people				7	
Does the ceiling leak in the gym at your school?					
Leaky Ceiling in Gym					
Yes: 0%, 0 people				0	
No: 83.1%, 54 people				32	
Missing: 16.9%, 11 people				7	
Are any windows painted or nailed shut?					
Windows Painted/Nailed Shut					
Yes: 12.3%, 8 people	4	0	2	6	15%
No: 78.5%, 51 people	10	3	16	29	
Missing: 9.2%, 6 people	0	1	3	4	
Are any windows painted or nailed shut in the classrooms at your school?					
Windows Painted/Nailed Shut in Classrooms					
Yes: 10.8%, 7 people	3	0	1	4	4/39= 10%
No: 78.5%, 51 people	11	3	16	30	
Missing: 10.8%, 7 people	0	1	4	5	

N= 65 Data	Students N= 14	Teachers N= 4	Parents N= 21	Total N= 39	% Total
Are any windows painted or nailed shut in the hallways at your school?					
Windows Painted/Nailed in Hallways					
Yes: 4.6%, 3 people	1	0	0	1	
No: 84.6%, 55 people	13	3	17	33	
Missing: 10.8%, 7 people	0	1	4	5	
Are any windows painted or nailed shut in the auditorium at your school?					
Windows Painted/Nailed Shut in Auditorium					
Yes: 1.5%, 1 person	0	0	0	0	
No: 87.7%, 57 people	14	3	17	34	
Missing: 10.8%, 7 people	0	1	4	5	
Are any windows painted or nailed shut in the bathrooms at your school?					
Windows Painted/Nailed Shut in Bathrooms					
Yes: 6.2%, 4 people	2	0	1	3	
No: 83.1%, 54 people	12	3	16	31	
Missing: 10.8%, 7 people	0	1	4	5	
Are any windows painted or nailed shut in the gym at your school?					
Windows Painted/Nailed Shut in Gym					
Yes: 1.5%, 1 person	0	0	0	0	
No: 87.7%, 57 people	14	3	17	34	
Missing: 10.8%, 7 people	0	1	4	5	
Are any windows broken at your school?					
Broken Windows					
Yes: 12.3%, 8 people	1	0	2	3	8%
No: 64.6%, 42 people	12	3	14	29	
Missing: 23.1%, 15 people	1	1	5	7	
Are there any windows broken in the classrooms at your school?					
Windows Broken in Classrooms					
Yes: 9.2%, 6 people	1	0	1	2	
No: 66.2%, 43 people	12	3	15	30	
Missing: 24.6%, 16 people	1	1	5	7	
Are any windows broken in the hallways at your school?					
Windows Broken in Hallways					
Yes: 6.2%, 4 people	1	0	1	2	
No: 69.2%, 45 people	12	3	15	30	
Missing: 24.6%, 16 people	1	1	5	7	

N= 65 Data	Students N= 14	Teachers N= 4	Parents N= 21	Total N= 39	% Total
Are any windows broken in the auditorium at your school?					
Windows Broken in Auditorium					
Yes: 0%, 0 people	0	0	0	0	
No: 75.4%, 49 people	13	3	16	32	
Missing: 24.6%, 16 people	1	1	5	7	
Are any windows broken in the bathrooms at your school?					
Windows Broken in Bathrooms					
Yes: 3.1%, 2 people	1	0	0	1	
No: 72.3%, 47 people	12	3	16	31	
Missing: 24.6%, 16 people	1	1	5	7	
Are any windows broken in the gym at your school?					
Windows Broken in Gym					
Yes: 0%, 0 people	0	0	0	0	
No: 75.4%, 49 people	13	3	16	32	
Missing: 24.6%, 16 people	1	1	5	7	
Is the ventilation/air circulation in your school poor?					
Poor Ventilation					
Yes: 24.6%, 16 people	4	1	6	11	28%
No: 53.8%, 35 people	8	2	12	22	
Both: 1.5%, 1 person	1			1	
Missing: 20%, 13 people	1	1	3	5	
Do the windows open?					
Windows Open					
Yes: 83.1%, 54 people	11	3	17	31	80%
No: 3.1%, 2 people	1	0	2	3	
Both: 3.1%, 2 people	1	0	0	1	
Missing: 10.8%, 7 people	1	1	2	4	
Does your school have air conditioning?					
Air Conditioning					
Yes: 30.8%, 20 people	4	1	5	10	26%
No: 60%, 39 people	10	3	14	27	
Missing: 9.2%, 6 people	0	0	2	2	
Does the air conditioning work in your school?					
Working Air Conditioning					
Yes: 26.2%, 17 people	4	1	4	9	90%
No: 7.7%, 5 people	0	0	0	0	
Missing: 66.2%, 43 people	1	0	0	1	

N= 65 Data	Students N= 14	Teachers N= 4	Parents N= 21	Total N= 39	% Total
Does the heat work in your school?					
Working Heat					
Yes: 76.9%, 50 people	10	2	18	30	77%
No: 6.2%, 4 people	2	0	0	2	
Sometimes: 4.6%, 3 people	2	0	1	3	13%
Missing: 12.3%, 8 people	0	2	2	4	
If the heat does work, is it adequate?					
Adequate Heat					
Yes: 50.8%, 33 people	6	2	11	19	
No: 16.9%, 11 people	3	0	3	6	6/30= 20%
Missing: 32.3%, 21 people	5	2	7	14	
Is there an offensive or musty odor in the building?					
Offensive/Musty Odor					
Yes: 24.6%, 16 people	6	1	4	11	28%
No: 63.1%, 41 people	8	3	13	24	
Missing: 12.3%, 8 people	0	0	4	4	
Are there fans or vents?					
Fans/Vents					
Yes: 52.3%, 34 people	10	0	6	16	
No: 26.2%, 17 people	3	1	8	12	31%
Missing: 21.5%, 14 people	1	3	7	11	
Do the fans or vents work?					
Working Fans/Vents					
Yes: 40%, 26 people	6	0	5	11	
No: 7.7%, 5 people	4	0	0	4	4/16= 25%
Sometimes: 1.5%, 1 person	1	1	2	4	
Missing: 50.8%, 33 people	3	3	14	20	
Do the cleaning fluids used in the school have a really strong (toxic) smell?					
Toxic Smell from Cleaning Fluids					
Yes: 16.9%, 11 people	2	1	1	4	6/39= 15%
No: 58.5%, 38 people	8	0	15	23	
Sometimes: 1.5%, 1 person	1	1	0	2	
Missing: 23.1%, 15 people	3	2	5	10	
If they do have a strong (toxic) smell, are the fumes too strong?					
Fumes too Strong					
Yes: 10.8%, 7 people	2	1	0	3	
No: 26.2%, 17 people	2	1	4	7	3/10= 30%
Missing: 63.1%, 41 people	10	2	17	29	

N= 65 Data	Students N= 14	Teachers N= 4	Parents N= 21	Total N= 39	% Total
Do the fumes from the cleaning fluids cause any medical problems for you or anyone you know?					
Do Fumes Cause Medical Problems					
Yes: 4.6%, 3 people	1	1	0	2	2/4= 50%
No: 61.5%, 40 people	9	2	14	25	
Missing: 33.8%, 22 people	4	1	7	12	
If the fumes do cause medical problems for you or someone you know, what are they?					
What Problems Caused by Fumes					
Vomit: 1.5%, 1 person	1			1	
Allergies: 1.5%, 1 person		1		1	
Headaches: 1.5%, 1 person					
Missing: 95.4%, 62 people					
Are there easily accessible fire extinguishers and/or fire alarms in the classrooms?					
Extinguishers/Alarms in Classrooms					
Yes: 23.1%, 15 people	5	0	4	9	
No: 47.7%, 31 people	8	3	6	17	17/39= 44%
Missing: 29.2%, 19 people	1	1	11	13	
Are there easily accessible fire extinguishers and/or fire alarms in the hallways?					
Extinguishers/Alarms in Hallways					
Yes: 60%, 39 people	11	3	9	23	
No: 10.8%, 7 people	2	0	2	4	4/39= 10%
Missing: 29.2%, 19 people	1	1	10	12	
Are there easily accessible fire extinguishers and/or fire alarms in the auditorium?					
Extinguishers/Alarms in Auditorium					
Yes: 30.8%, 20 people	7	1	3	11	
No: 40%, 26 people	5	2	5	12	12/39= 31%
Missing: 29.2%, 19 people	2	1	13	16	
Are the fire exits easily accessible?					
Fire Exits Accessible					
Yes: 49.2%, 32 people	6	2	11	19	
No: 7.7%, 5 people	2	0	1	3	3/39= 8%
Missing: 43.1%, 28 people	6	2	9	17	
Is there a safety strategy for exiting the building quickly and safely?					
Exit Strategy					
Yes: 56.9%, 37 people	5	3	15	23	
No: 9.2%, 6 people	3	0	1	4	10%
Missing: 33.8%, 22 people	6	1	5	12	

N= 65 Data	Students N= 14	Teachers N= 4	Parents N= 21	Total N= 39	% Total
Are there illuminated fire exit signs?					
Illuminated Signs					
Yes: 49.2%, 32 people	5	1	12	18	
No: 18.5%, 12 people	3	1	1	5	13%
Missing: 32.3%, 21 people	6	2	8	16	
Do the illuminated fire exit signs work?					
Working Illuminated Signs					
Yes: 43.1%, 28 people	4	1	9	14	
No: 6.2%, 4 people	1	0	0	1	
Missing: 50.8%, 33 people	9	3	12	24	
Are any of your classrooms overcrowded?					
Overcrowded Classrooms					
Yes: 30.8%, 20 people	3	0	11	14	14/39= 36%
No: 50.8%, 33 people	7	3	9	19	
Missing: 18.5%, 12 people	4	1	1	6	
If the classrooms are overcrowded, how many students are in the class?					
# Students in Classrooms					
20: 3.1%, 2 people	0	0	2	2	
30: 30.8%, 20 people	3	0	7	10	
40: 9.2%, 6 people	0	0	1	1	28%
Missing: 56.9%, 37 people	11	4	11	26	
Are classes held in nontraditional spaces such as hallways?					
Classes Held in Hallways					
Yes: 10.8%, 7 people	0	2	2	4	10%
No: 66.2%, 43 people	10	1	14	25	
Missing: 23.1%, 15 people	4	1	5	10	
Are classes held in nontraditional spaces such as the auditorium?					
Classes Held in Auditorium					
Yes: 4.6%, 3 people	0	0	2	2	5%
No: 72.3%, 47 people	10	3	14	27	
Missing: 23.1%, 15 people	7	1	5	10	
Are classes held in nontraditional spaces such as bathrooms?					
Classes Held in Bathrooms					
Yes: 0%, 0 people	0	0	0	0	no
No: 76.9%, 50 people	10	3	16	29	
Missing: 23.1%, 15 people	4	1	5	10	

N= 65 Data	Students N= 14	Teachers N= 4	Parents N= 21	Total N= 39	% Total
Are classes held in other nontraditional spaces?					
Classes Held in Other Spaces					
Yes: 6.2%, 4 people	0	0	1	1	
No: 70.8%, 46 people	10	3	15	28	
Missing: 23.1%, 15 people	4	1	5	10	
Are there enough desks and chairs?					
Enough Desks/Chairs					
Yes: 72.3%, 47 people	11	4	13	28	
No: 15.4%, 10 people	1	0	5	6	6/39= 15%
Missing: 9.2%, 6 people	2	0	3	5	
Are the desks safe and serviceable?					
Desks Safe/Serviceable					
Yes: 76.9%, 50 people	10	3	16	29	
No: 4.6%, 3 people	0	1	2	3	
Missing: 18.5%, 12 people	4	0	3	7	
Are there water fountains in your school?					
Water Fountains					
Yes: 89.2%, 58 people	12	3	17	32	
No: 3.1%, 2 people	0	0	2	2	
Missing: 7.7%, 5 people	2	1	2	5	
Do the water fountains in your school work?					
Working Water Fountains					
Yes: 61.5%, 40 people	9	3	12	24	
No: 12.3%, 8 people	2	0	1	3	8/39= 21%
Sometimes: 12.3%, 8 people	1	0	4	5	
Missing: 13.8%, 9 people	2	1	1	7	
Do the sinks or toilets function properly?					
Functioning Sinks/Toilets					
Yes: 72.3%, 47 people	9	2	11	30	
No: 12.3%, 8 people	3	0	0	3	8%
Missing: 1.5%, 1 person	2	2	2	6	
If the sinks and toilets break down, approximately how often?					
How Often Sinks/Toilets Break Down					
Once a month: 13.8%, 9 people	1	2	2	5	
Once a week: 4.6%, 3 people	2	0	0	2	8%
Every day: 10.8%, 7 people	1	0	0	3	
Missing: 70.8%, 46 people	10	2	19	31	

N= 65 Data	Students N= 14	Teachers N= 4	Parents N= 21	Total N= 39	% Total
For how long do the sinks and toilets break down?					
For How Long Sinks/Toilets Break Down					
One month: 4.6%, 3 people	1	0	0	1	
A week: 4.6%, 3 people	0	0	1	1	6/3915%
A few days: 9.2%, 6 people	2	1	1	4	
A few hours: 3.1%, 2 people	1	0	1	2	
Missing: 78.5%, 51 people	10	3	18	31	
Is there soap?					
Soap					
Yes: 61.5%, 40 people	7	3	11	21	
No: 24.6%, 16 people	5	0	7	11	28%
Missing: 13.8%, 9 people	2	1	4	7	
Is there toilet paper available?					
Toilet Paper					
Yes: 70.8%, 46 people	11	2	14	28	
No: 16.9%, 11 people	3	0	3	6	
Sometimes: 4.6%, 3 people	0	0	1	1	7/39= 18%
Missing: 7.7%, 5 people	0	1	3	4	
Is the water coming out of the faucet or water fountain ever brown or discolored?					
Discolored Water					
Yes: 16.9%, 11 people	3	1	2	6	15%
No: 70.8%, 46 people	10	2	17	29	
Missing: 12.3%, 8 people	1	1	2	4	
Does the water have an offensive odor?					
Water Odor					
Yes: 6.2%, 4 people	1	0	0	1	
No: 86.2%, 56 people	13	3	19	35	
Missing: 7.7%, 5 people	0	1	2	3	
Does the water have a funny taste?					
Funny Tasting Water					
Yes: 33.8%, 22 people	5	0	6	13	33%
No: 55.4%, 36 people	9	1	12	22	
Missing: 10.8%, 7 people	0	1	3	4	

N= 65 Data	Students N= 14	Teachers N= 4	Parents N= 21	Total N= 39	% Total
Is the cafeteria clean?					
Clean Cafeteria					
Yes: 67.7%, 44 people	9	2	15	26	
No: 21.5%, 14 people	4	1	3	8	21%
Sometimes: 1.5%, 1 person	0	0	0	0	
Missing: 10.8%, 7 people	1	1	3	5	
Are the eating utensils [forks and knives] clean?					
Clean Eating Utensils					
Yes: 83.1%, 54 people	13	3	18	34	
No: 1.5%, 1 person	0	0	0	0	
Missing: 15.4%, 10 people	1	1	3	5	
Is the food fresh?					
Fresh Food					
Yes: 70.8%, 46 people	11	3	14	28	
No: 9.2%, 6 people	3	0	0	3	
Sometimes: 1.5%, 1 person	0	0	0	0	
Missing: 18.5%, 12 people	0	1	7	8	
Are the floors clean?					
Clean Floors					
Yes: 64.6%, 42 people	9	3	13	25	
No: 23.1%, 15 people	5	0	2	7	18%
Sometimes: 1.5%, 1 person	0	0	1	1	
Missing: 10.8%, 7 people	0	1	5	6	
Are spills or food waste cleaned up adequately?					
Spills/Food Waste Cleaned Adequately					
Yes: 63.1%, 41 people	10	2	13	25	
No: 18.5%, 12 people	4	0	2	6	15%
Sometimes: 6.2%, 4 people	0	1	2	3	
Missing: 12.3%, 8 people	0	1	4	5	
Is there garbage or discarded waste around your school?					
Garbage/Discarded Waste					
Yes: 38.5%, 25 people	7	1	4	12	31%
No: 43.1%, 28 people	5	1	12	18	
Missing: 18.5%, 12 people	2	2	5	9	

N= 65 Data	Students N= 14	Teachers N= 4	Parents N= 21	Total N= 39	% Total
Are the bathrooms clean?					
Clean Bathrooms					
Yes: 52.3%, 34 people	5	2	12	19	
No: 32.3%, 21 people	9	1	2	12	12/39= 31%
Sometimes: 3.1%, 2 people	0	0	2	2	
Missing: 12.3%, 8 people	0	1	5	6	
Is there a roach or rodent problem?					
Roach/Rodent Problem					
Yes: 23.1%, 15 people	3	1	4	8	8/39= 21%
No: 60%, 39 people	9	2	12	23	
Missing: 16.9%, 11 people	2	1	5	8	
Do the staircases in your building have handrails?					
Handrails on Staircases					
Yes: 89.2%, 58 people	14	3	17	34	
No: 0%, 0 people	0	0	0	0	
Missing: 10.8%, 7 people	0	1	4	5	
Are the staircases safe [free of garbage, debris, and cracks]?					
Safe Staircases					
Yes: 76.9%, 50 people	12	2	16	30	
No: 7.7%, 5 people	2	0	1	3	
Missing: 15.4%, 10 people	0	2	4	6	
Is there satisfactory lighting?					
Satisfactory Lighting					
Yes: 61.5%, 40 people	6	3	14	23	
No: 24.6%, 16 people	6	1	3	10	10/39= 26%
Missing: 13.8%, 9 people	2	0	4	6	
Is the lighting unsatisfactory in the classrooms?					
Bad Lighting in Classrooms					
Yes: 4.6%, 3 people	1	0	1	2	
No: 75.4%, 49 people	9	4	16	29	
Missing: 20%, 13 people	4	0	4	8	
Is the lighting unsatisfactory in the hallways?					
Bad Lighting in Hallways					
Yes: 15.4%, 10 people	3	1	3	7	7/39=18%
No: 64.6%, 42 people	7	3	14	24	
Missing: 20%, 13 people	4	0	4	8	

N= 65 Data	Students N= 14	Teachers N= 4	Parents N= 21	Total N= 39	% Total
Is the lighting unsatisfactory in the auditorium?					
Bad Lighting in Auditorium					
Yes: 6.2%, 4 people	2	0	0	2	
No: 73.8% 48 people	7	4	17	28	
Missing: 20%, 13 people	5	0	4	9	
Is the lighting unsatisfactory in the bathrooms?					
Bad Lighting in Bathrooms					
Yes: 6.2%, 4 people	2	0	0	2	
No: 73.8%, 48 people	7	4	17	29	
Missing: 20%, 13 people	4	0	4	8	
Are there school buses which stay parked outside?					
Buses Parked Outside					
Yes: 12.3%, 8 people	2	1	6	9	9/39= 23%
No: 64.6%, 42 people	7	1	12	20	
Missing: 23.1%, 15 people	5	2	3	10	
If there are school buses which stay parked outside, are their engines ever on?					
Engines On					
Yes: 6.2%, 4 people	0	1	5	6	15%
No: 4.6%, 3 people	1	0	0	1	
Missing: 89.2%, 58 people	13	3	16	32	
If their engines are ever on, how often are they on?					
How Often Engines Are On					
Once a month: 0%, 0 people					
Once a week: 0%, 0 people					
A few days every week: 0%, 0 people					
Every day: 1.5%, 1 person			1	1	
Missing: 98.5%, 64 people				38	
If their engines are ever on, for how long are they on?					
For How Long are Engines Left On					
A few hours: 1.5%, 1 person				1	
One hour: 3.1%, 2 people				2	13%
15-20 Minutes: 4.6%, 3 people				2	
Missing: 90.8%, 59 people				34	
Are there any bus depots nearby your school?					
Bus Depots Near School					
Yes: 33.8%, 22 people	6	0	4	10	26%
No: 44.6%, 29 people	4	2	14	20	
Missing: 21.5%, 14 people	4	2	3	9	

N= 65 Data	Students N= 14	Teachers N= 4	Parents N= 21	Total N= 39	% Total
Are there any waste transfer stations nearby your school?					
Waste Transfer Stations Near School					
Yes: 7.7%, 5 people	1	0	0	1	
No: 60%, 39 people	8	1	13	22	
Missing: 32.3%, 21 people	5	3	8	16	
Is there a nearby sewage treatment plant?					
Nearby Sewage Treatment Plant					
Yes: 1.5%, 1 person	0	0	1	1	
No: 78.5%, 51 people	11	0	16	29	
Missing: 20%, 13 people	3	2	4	9	
Is there any external pollution or object near your school that affects the cleanliness or safety of the school environment?					
External Pollution					
Yes: 1.5%, 1 person	0	0	1	1	
No: 78.5%, 51 people	10	3	19	32	
Missing: 20%, 13 people	4	1	1	6	
Is there safety equipment [rubber padding, matting, etc.] for use on the playground?					
Safety Equipment on Playground					
Yes: 41.5%, 27 people	5	1	10	16	
No: 26.2%, 17 people	1	1	8	10	26%
Missing: 32.3%, 21 people	8	2	3	13	
Are there pieces of glass or other debris on the playground?					
Glass/Debris on Playground					
Yes: 15.4%, 10 people	3	0	3	6	15%
No: 55.4%, 36 people	5	3	15	23	
Missing: 29.2%, 19 people	6	1	3	10	
Is the gym at your school usable (in decent condition, open for use, etc.)?					
Usable Gym					
Yes: 70.8%, 46 people	9	2	18	29	
No: 7.7%, 5 people	1	0	1	2	
Missing: 21.5%, 14 people	6	2	3	10	
Does the gym have adequate safety equipment for athletic activities?					
Safety Equipment in Gym					
Yes: 61.5%, 40 people	8	2	14	24	
No: 10.8%, 7 people	1	0	3	4	10%
Missing: 27.7%, 18 people	5	2	4	11	

Appendix D:
List of Schools/Sites

Schools/Sites stated by respondents in survey

1. CIS82x	Intermediate	Bronx 9
2. IS 151	Intermediate	Bronx 7
3. 1700 Macombs CIS82JHS	Intermediate	Bronx 9
4. PS 84 Lillian Weber	Elementary	Manhattan 3
5. PS 9 Sarah Anderson	Elementary	Manhattan 3
6. Walton High School	High School	Bronx
7. Fiorello H. LaGuardia High School	High School	Manhattan
8. PS 108	Elementary	Manhattan 4
9. Grace Dodge Vocational	High School	Bronx
10. OES/ 121 6th Ave	Alternative HS	Manhattan
11. P.S. 217	Elementary	Manhattan 2
13. PS 198	Elementary	Manhattan 2
14. Walton High School	High School	Bronx
15. Lefferts Garden Montessori	Private (U prek)	
16. HS GCA	High School	Queens
17. Bronx Leadership Academy High School	High School	Bronx
18. PS 126- the Riis School	Elementary	Manhattan 2
19. PS 87	Elementary	Manhattan 3
22. OES/ 121 6th Ave	Alternative HS	Manhattan
23. Fiorello H. LaGuardia High School	High School	Manhattan
24. Monroe	High School	Bronx
25. Mohegan Elementary	Elementary	Bronx 12
26. Roosevelt	High School	Bronx
27. DeWitt Clinton	High School	Bronx
28. Grace Dodge Vocational	High School	Bronx
29. Grace Dodge Vocational	High School	Bronx
30. Roosevelt	High School	Bronx
31. Columbus High School	High School	Bronx
32. Washington Irving High School	High School	Manhattan
33. Walton High School	High School	Bronx
34. Washington Irving High School	High School	Manhattan
35. PS 217	Elementary	Manhattan 2
36. PS 226	Elementary	Brooklyn 21
37. Ella Baker	Alternative HS	Manhattan
38. West Side Academy	High School	Manhattan
39. Prospect Heights	High School	Brooklyn
40. Roosevelt	High School	Bronx
41. PS 397	Elementary	Brooklyn 17
42. PS 83 District #11	Elementary	Bronx 11
43. PS 217	Elementary	Brooklyn 22
44. IS 240	Intermediate	Brooklyn 22
44. Madison High School	High School	Brooklyn
45. RFK High School	High School	Queens
47. PS 197 Q	Elementary	Queens 27
49. Unity	Alternative HS	Manhattan

50. OES/ 121 6th Ave	Alternative HS	Manhattan
51. OES/ 121 6th Ave	Alternative HS	Manhattan
52. OES/ 121 6th Ave	Alternative HS	Manhattan
53. Washington Irving High School	High School	Manhattan
54. Manhattan School for Career Development	High School	Manhattan 75
55. PS 43	Elementary	Bronx 7
56. IS 27	Intermediate	Staten Island 31
57. Bronx High School of Science	High School	Bronx
58. Tottenville High School	High School	Staten Island
59. City As High School	Alternative HS	Manhattan
60. Seward Park High School	High School	Manhattan
61. DeWitt Clinton	High School	Bronx
62. OES/121 6th Ave	Alternative HS	Manhattan
63. OES/ 121 6th Ave	Alternative HS	Manhattan
65. PS 167	Elementary	Brooklyn 17

High Schools- 29
Intermediate- 5
Elementary- 16
Alternative HS/GED- 9
Private- 1

Bronx District 7- 2
Bronx District 9- 3
Bronx District 11- 1
Bronx District 12- 1

Brooklyn District 17- 2
Brooklyn District 21- 1
Brooklyn District 22- 2

Manhattan District 2- 4
Manhattan District 3- 3
Manhattan District 4- 1

Queens District 27- 1

Staten Island District 31- 1